The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1609.—Vol. XXXVI. LONDON, SATURDAY, JUNE 23, 1866. {STAMPED ....SIXPENCE. UNSTAMPED..FIVEPENCE.

MR. JAMES CROFTS, STOCK AND SHAREBROKER, No. 1, FINCH LANE, CORNHILL. (Established 23 years.)

The MINING MARKET is every day becoming more favourable for investments, and its progress to even a safer point will be further accelerated by the anticipated fall in the value of money. Safe investment shares can be indicated by Mr. CROFTS in answer to applications.

In foreign mines, MINERAL RIGHTS are largely dealt in, the capital of £30,000 being now fully subscribed, and some valuable gold mining properties are stated to have already been secured. The CHONTALES MINES may be considered as the model upon which the MINERAL RIGHTS will be worked, and they will probably attain the same success as CHONTALES—namely, a very handsome premium, for which reason, amongst others, these shares are recommended to be bought at once, Mr. CROFTS being prepared to sell a few shares at the market price.

FOR SPECIAL SALE:—100 HOLLYBUSH COAL, paying 10 per cent. per annum; and BEDOL-AUR, on most advantageous terms (by negociation).

Bankers: National Bank of Scotland, Finch-lane.

MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.

JAMES LANE has FOR SALE at nett prices:—100 Birch Tor and Vitifer, 2s. 6d.; 10 Camborne Vean, 36s.; 25 Crebor, 12s. 6d.; 10 Chiverton, £6¾; 10 Clifford, £7½; 20 Chontales, £3⅞; 25 Central Snailbeach, 28s. 6d.; 20 Central Minera, 25s.; 10 East Caradon, £8⅛; 50 East Jane, 3s.; 20 East Carn Brea, 20s.; 10 East Lovell, £7; 10 Frank Mills, £4¼; 50 Frontino and Bolivia, 16s. 3d.; 5 Great Laxey, £21½; 50 Great No. Laxey, 40s.; 70 Great So. Chiverton, 5s. 6d.; 5 Great Vor, £17½; 20 Great Caradon, 3s. 6d.; 100 Mineral Rights, 19s.; 10 Marke Valley, £4; 50 North Jane; 20 North Treskerby, £2½; 20 New Wheal Lovell, 10s. 6d.; 20 Prince of Wales, 10s. 6d.; 300 Rosa Grande, 3s. 6d. (call paid).

JAMES LANE is a BUYER of North Jane.

MR. LELEAN (Member of the Mining Exchange) BUYS and SELLS ENGLISH and FOREIGN STOCKS and SHARES, INSPECTS MINES, and advises parties who consult him for profitable and safe investments.

Bankers: Robarts, Lubbock, and Co., Lombard-street.

11, Royal Exchange, London, E.C.

MR. LELEAN'S STOCK, SHARE, AND FINANCE REGISTER should be consulted by all who wish to make safe and profitable investments, giving 10 per cent. and upwards; to review the state of the markets for the preceding month; and to see the Causes and Consequences of the Panic clearly stated. Single copies, 6d. each; annual subscription, 5s. Published monthly, and sold by Messrs. Pottle and Son, 14 and 15, Royal Exchange, London, E.C.

GEORGE RICE, SHAREDEALER, 5, COWPER'S COURT, BIRCHIN LANE, LONDON (23 years' experience), Member of the Mining Exchange, DEALS largely in MINING SHARES, either as BUYER or SELLER, at closest market prices.

GEORGE RICE will BUY, at the highest market prices, for cash down, SHARES in the FOLLOWING MINES:

Chiverton Moor.	East Caradon.	Prince of Wales.
Chiverton.	East Lovell.	St. John del Rey (Gold)
Chontales (Gold).	Frontino (Gold).	Wheal Grenville.
Clifford Amalgamated.	Great Wheal Vor.	West Chiverton.
East Grenville.	Marke Valley.	Wheal Crebor.
East Carn Brea.	North Treskerby.	Washoe Gold.

Money lent on mining shares.

June 22, 1866. Bankers: Bank of England.

GREAT WHEAL VOR.—GEORGE RICE, 5, COWPER'S COURT, BIRCHIN LANE, LONDON, is a BUYER, for cash down, of any part of 100 shares in this mine, and will give the highest market price. Sellers will please state number of shares.

CHONTALES GOLD MINE.—GEORGE RICE, 5, COWPER'S COURT, BIRCHIN LANE, LONDON, deals largely, as BUYER or SELLER, in these shares, at close market prices.

MR. J. W. HUTCHINSON, 78, OLD BROAD STREET, and MINING EXCHANGE, LONDON, E.C., tenders his services to the public in the sale or purchase of mining and other securities, at close nett prices. A selected list on application.

Bankers: City Bank.

MR. WILLIAM SEWARD, STOCK AND SHAREDEALER, 19, THROGMORTON STREET, LONDON, E.C.

MR. JAMES HUME, 74, OLD BROAD STREET, LONDON, (Member of the Mining Exchange).

Mr. HUME'S Circular forwarded on application.

Bankers: The London Joint-Stock Bank.

MATTHEW GREENE, STOCK AND SHAREDEALER, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C., Is always prepared to deal at close prices in mining, bank, railway shares, &c.

Mr. GREENE can recommend three mines for a safe rise.

Money advanced on mining shares.

Bankers: Imperial Bank.

June 22, 1866. Office hours, Ten till Four.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C., has BUSINESS to TRANSACT in all the LEADING MINES in DEVON and CORNWALL.

T. ROSEWARNE has just returned from his tour of inspection in Devon and Cornwall, and is enabled to give valuable information to parties desirous of investing in mines in either county.

Never was there a more favourable opportunity for parties to invest than at the present, particularly in lead and copper mines, as there are many safe for a great rise, and will pay cent. per cent.

WANTED TO BUY, any part of the following, at a shade above the market prices:—100 East Caradon, 100 Marke Valley, 2000 Prince of Wales, 200 Great North Downs, 200 North Treskerby, 300 Crebor, 500 New Russell, 50 Great Vor, 500 Caldbeck, 500 Agar, 100 Gawton, 500 East Gunnislake, 200 Penhale and Lomax, 100 Bedford United, 20 West Chiverton, 100 Chiverton Moor, 500 Drake Walls.

An OFFER WANTED for Clitters, New Birch Tor, East Snaefell, Central Snailbeach, Rosewarne Consols, Rosewarne United, Roskearnoweth, North Bassset, Wheal Union, Great South Tolgus, Pendeen, Stray Park, North Roskear, West Maria, Lady Bertha, Great Busy, Brixham Hematite Iron, North hepherds, Frontino, and West Frances.

Money advanced on marketable mining shares. Office hours, Ten till Four.

Bankers: Bank of England.

SHAREHOLDERS IN PUBLIC COMPANIES desirous of avoiding calls and further responsibility will find purchasers on applying to Messrs. BARRETT AND CO., 75, OLD BROAD STREET, CITY, and No. 9, SPRING GARDENS, CHARING CROSS. Stocks, shares, &c., bought and sold. Investment Review on application. Cash advances made.

MESSRS. THOMPSON AND CO., SHAREDEALERS, 7, BISHOPSGATE STREET, LONDON, afford reliable information relative to banks, financial companies, &c.

Stocks and shares of every kind bought and sold.

MR. WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, continues to deal, at close market prices, in all good sound DIVIDEND and PROGRESSIVE MINES, either for cash or the account.

MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.

MINES INSPECTED and faithfully REPORTED ON. DEALER in MINING, RAILWAY, and OTHER SHARES.

Temporary Offices, 78, Shrubland Grove, Dalston.

MR. GEORGE BUDGE, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 18 years), has FOR SALE, at nett prices:—30 Quebrada (fully paid), £3¼; 40 Great North Laxey, 40s.; 75 Prince of Wales, 10s.; 150 Mineral Rights; 30 Cape Copper, £9¾; 25 Chontales, £3⅝; 200 Frontino and Bolivia; 3 Providence, £23; 200 Old Gunnislake, 32s.; 7 Gawton, £3; 300 West Maria, 11s. 6d.; 50 United Mexican, 36s.; 25 Central Minera; 1 West Sharp Tor, £22½; 50 Great Busy.

Mr. BUDGE is a BUYER of 2 Devon Great Consols, £420; 1 South Caradon, £320; 2 Wheal Seton, £170; 10 Clifford, £7; 1 West Seton, £120; 200 Anglo-Brazilian, 6s. 6d.; 100 Don Pedro; 100 Alamillos, 24s.; 200 East Seton, 2s.; 50 Linares, 27s.; 50 Fortuna, 37s.; 70 Port Phillip; 80 Scottish Australian, 9s.; 60 60 Panuelillo Copper, £2 7s.; 2 Minera; 120 Vallanzasca; and 50 West Canada Copper.

STOCK EXCHANGE SECURITIES, &c.—A Selected List of Stocks and Shares, also Cornish and Foreign Mines, to be had on application to PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

GREAT WHEAL VOR.—Mr. PETER WATSON has always been, and is now, a BUYER and SELLER at close market prices, free of commission, and if desired will give his opinion as to whether these shares should be BOUGHT or SOLD at present prices.—PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London, E.C.

STOCK EXCHANGE SECURITIES.

Railways.	Banks.	English Funds.
Financial.	Foreign Funds.	Discount.
Steamship.	Loan.	Docks.
Ironworks.	Gas.	Water Works.
Insurance.	Telegraph.	Hotel.
Marine Insurance.	Land.	Irrigation.
Foreign Mines.	Cornish Mines.	Devon Mines.

And other public companies.

American Securities. Canada Bonds.

MR. PETER WATSON, STOCK AND SHAREDEALER, begs to state that every information respecting any of the above companies may be had on personal application, or by letter, as to PURCHASES and SALES, with advice as to the most desirable investments.

From the close proximity of his offices to the Stock Exchange, and also the Mining Exchange, he is enabled to act with promptitude on all orders entrusted to him in the PURCHASE or SALE of every description of stocks or shares, at nett prices, for cash or fortnightly settlements.

TELEGRAPHIC MESSAGES of customers to BUY or SELL in any of the above companies punctually attended to, at nett prices, for cash or half-monthly settlements, at the closest possible market prices of the day.

Twenty-one years' experience.

(Two in Cornwall and Nineteen in London.)

Bankers: The Alliance Bank, and the Union Bank of London.

The present is an unusually favourably period for the investment of capital in *bona fide* concerns.

A SELECTED LIST of Railways, Banks, Financial, Foreign Funds, Steamships, Foreign and Cornish and Devon Mines, American and Colonial Securities, &c., sent on application, with special recommendations as to investments, &c., on the distinct understanding that any business resulting through his information or advice may be done through him.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London, E.C.

N.B.—References given and required (when necessary) in all the principal towns of the United Kingdom.

MR. EDWARD COOKE, STOCK AND SHAREDEALER, 2, CROWN COURT, THREADNEEDLE STREET, E.C.

Frank Mills, East Lovell, Chontales, Mineral Rights, Prince or Wales, and Tresavean shares should be bought, as there is every probability of a great rise in the course of the coming two or three months. The present price is so ridiculously low that there is a large margin for profit.

Satisfactory references given in any town in the United Kingdom.

Bankers: Alliance Bank, Lothbury.

MESSRS. WARD AND JACKMAN, STOCK AND SHAREDEALERS, No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.

Bankers: London and Westminster, Lothbury.

MESSRS. McNEILL AND LONG, STOCK, SHARE, AND MINING DEALERS, 7, POPE'S HEAD ALLEY, LOMBARD STREET, E.C.

Bankers: Alliance Bank.

BARTLETT AND CHAPMAN have FOR SALE the FOLLOWING SHARES for cash, the prices of which can be obtained on application:—

5 Clifford Amalgam.	20 East Providence.	20 North Chiverton.
100 Central Snailbeach.	25 East Laxey.	50 North Jane.
10 Chiverton Moor.	10 Frank Mills.	2 Providence.
5 Chivertons.	10 Great Laxey.	20 Reinnie Laxey.
25 Chontales Gold.	25 Great North Laxey.	50 Rosewarne Consols.
20 East Carn Brea.	5 Great Vor.	20 South Condurrow.
10 East Caradon.	100 Great So. Chiverton.	5 West Chiverton.
10 East Lovell.	3 Herodsfoot.	10 Wheal Margery.
3 East Basset.	5 Hingston Down.	1 Wheal Basset.
50 East Chiverton.	10 Marke Valley.	5 Wheal Trelawny.
25 East Grenville.	5 Nangiles.	1 Wheal Seton.

A Selected List of Desirable Investments in Banks, Railways, Government Stocks, Mines, and Miscellaneous Companies forwarded on application. Enquiries, either personally or by letter, will meet with prompt attention.

Offices, 2, Bucklersbury, London, E.C.

Bankers: London and Westminster.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 12 years), has FOR SALE the FOLLOWING SHARES, at nett prices:—

40 E. Rosewarne, 20s. 6d.	200 Okel Tor, 10s. 3d.	10 Pendeen, 5s. 3d.
50 Rose. Cons., 12s.	3 Bryn Gwyn, £13½.	75 Mineral Rights, 18s9d
30 North Chiverton, 28s.	50 Redmoor, 5s. 6d.	15 Wheal Uny, 10s 6d.
5 Tresavean, £7.	20 New Lovell, 7s. 6d.	5 St. Ives, £5½.
40 Gonamena, 9s.	50 Cen. Snailbeach, 28s 3d	30 Central Minera, 30s.
15 Penhale Wh. Vor, 10s.	15 Crane, 5s.	50 Hallenbeagle, 5s. 3d.
20 Gt. East Lovell, 6s 9d	1 Devon Consols, £450.	5 Great Wh. Vor, £18¼
5 Providence, £23¼.	25 East Grenville, £2 8 9	50 So. Grenville, 28. 6d.
50 Great Retallack, £⅛.	5 North Roskear, £3⅞.	20 Frank Mills, £4⅝.
20 Great Fortune, £2⅛.	30 No. Treskerby, 48s 9d.	25 So. Condurrow, 18s 9d
15 Stray Park, 15s.	5 East Basset, £12⅞.	10 Trelawny, £12½.
50 South Darren, £3 1s.	20 Marke Valley, 76s 3d	20 East Caradon, £7 16 3
10 Tincroft, £10 6s. 3d.	1 Wheal Seton, £179.	1 West Seton, £122½.
20 Chiv. Moor, £6 8s. 9d.	80 Chontoles, £1⅞ pm.	90 Frontino, 15s.
100 Caldbeck Fells, 20s.	15 Clifford, £7 8s. 9d.	2 West Chiverton, £78⅛
20 Chiverton, £6⅜.	50 Gt. No. Laxey, 38s.	25 Camb. Vean, 36s. 3d.

JOHN RISLEY, 32, LOMBARD STREET, and MINING EXCHANGE, LONDON, E.C., has SPECIAL BUSINESS in East Grenville, Wheal Buller, and West Caradon shares.

MR. G. D. SANDY, STOCK AND SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C., TRANSACTS BUSINESS in EVERY DESCRIPTION of STOCK EXCHANGE SECURITIES, MINING and FINANCIAL ENTERPRISES, at close market prices.

Correct Daily Price List may be had on application.

Money advanced to any amount on legitimate stocks and shares.

References exchanged.

Investment Circular for the present month now ready.

NOTICE OF REMOVAL.

MR. J. B. REYNOLDS has REMOVED to Nos. 70 and 71, BISHOPSGATE STREET WITHIN, LONDON, E.C.

MESSRS. WILSON, WARD, AND CO., STOCK AND SHAREDEALERS, 16, UNION COURT, OLD BROAD STREET, LONDON, E.C.

Messrs. WILSON, WARD, and CO. are DEALERS in the FOLLOWING SHARES, at market prices: Frontino and Bolivia Gold, Great Laxey, Caldbeck Fells, Penhale and Lomax, New Wheal Towan, and North Treskerby. Can recommend two good mines for investment. Their fortnightly Circular may be had on application.

MR. THOMAS THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.

OFFICES OF

THE GREAT LAXEY MINING COMPANY (LIMITED).
THE SNAEFELL MINING COMPANY (LIMITED).
THE EAST SNAEFELL MINING COMPANY (LIMITED).
THE EAST LAXEY MINING COMPANY (LIMITED).
THE REINNIE LAXEY MINING COMPANY (LIMITED).
THE CENTRAL SNAILBEACH MINING COMPANY (LIMITED).

INVESTMENT, LOAN, AND BANK AGENCY.—Investments effected in Stocks, Shares, and other Securities, and 75 per cent. of the purchase money advanced, if required, subject to quarterly or half-yearly repayments.

Loans negotiated on Public Securities having a market value, interest allowed upon deposits, and every description of Bank and Money Agency business undertaken. CHARLES PETERS, Sec.

No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER, 3, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C.

MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 18, UNION CHAMBERS, UNION COURT, OLD BROAD STREET, LONDON, E.C.

Mr. THOMAS has SPECIAL BUSINESS in North Dolcoath, North Minera, Wheal Hartley, Mary Ann, Minera (Wrexham), and Bedol-Aur (Holywell).

MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE, LONDON, E.C., AND MINING EXCHANGE, STOCK AND SHAREDEALERS, AND FINANCIAL AGENTS, transact business in all kinds of securities at closest nett prices for cash or account.

SPECIAL BUSINESS in Chontales, Mineral Rights Association, Zacatecas, Frontino, and Caldbeck Fells, either as BUYERS or SELLERS, for cash or the fortnightly settlement.

Parties of respectability can have transfers registered in their names previous to payment. Daily price list on application.

Bankers: London and County Bank.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C.

FOR SALE, TWENTY GREAT NORTH LAXEY SHARES, cheap, the seller being in want of money.—Address, "E. Y.," Post-office, Throgmorton-street, E.C.

MR. J. P. ENDEAN, SHAREDEALER, &c., of 25 years' experience, DEALS, and NEGOCIATES the SALE and PURCHASE of SHARES in Mines, Banks, Hotels, Water-works, Bridges, Canals, and every other marketable security, at nett prices, for cash or the fortnightly settling.

5, Finsbury Chambers, London-wall, E.C.

SOUTH LEISURE.—Mr. J. P. ENDEAN has SPECIAL BUSINESS in 1000, or any less number, as BUYER at 25s., or will SELL at 27s. 6d. per share. State number and lowest price.—3, Finsbury Chambers, London-wall, London, E.C.

THE BRITISH AND FOREIGN MINING AGENCY, AND GENERAL INVESTMENT OFFICES, No. 5, FINSBURY CHAMBERS, LONDON WALL, LONDON, E.C.

MESSRS. WEBB, WADGE, AND CO., MINING ENGINEERS, AGENTS, AND SHAREDEALDRS, PLYMOUTH.

WEBB, WADGE, AND CO. (late Edwin H. Wadge) beg to inform their friends and clients that they have made arrangements with Mr. Edwin H. Wadge (for two years the chief representative and manager of the extensive business of Harvey and Co., Clarence Chambers, Manchester), and that his business will henceforth be transacted under the name and title of WEBB, WADGE, AND CO., at No. 9, CRESCENT PLACE, PLYMOUTH.

WEBB, WADGE, AND CO., occupying as they do a central position in the heart of the mining districts, will be enabled to acquire authentic information on all mining properties, and to advise their clients with the utmost correctness and punctuality. They will be also able to faithfully report the progress and exact position of the various mines in which their clients have embarked.

Address, Messrs. WEBB, WADGE, and Co., South of England Mining and Engineering Offices, 9, Crescent-place, Plymouth.

MR. ERWIN HARVEY WADGE, F.G.S., of STRADBROOK HALL, BLACKROCK, COUNTY DUBLIN, finds it necessary to point out that he is NOT the Mr. WADGE of the FIRM of WEBB, WADGE, AND CO., of PLYMOUTH, with which he has NOT THE SLIGHTEST CONNECTION. This announcement is not made with any disrespect to, or prejudice of the respectability of, Messrs. Webb, Wadge, and Co., but purely to prevent such a confusion of persons as the extraordinary similarity of two names (the initials being identical) gives rise to.—Stradbrook Hall, June 21, 1866.

JOSEPH TAYLOR AND CO., FINANCIAL, MINING, AND GENERAL AGENTS, 17, CROSS STREET, MANCHESTER. DEALER in MINING and OTHER SHARES.

MINING OFFICES, MANCHESTER.

THOMAS MOLYNEUX AND CO., MINE AGENTS AND SHAREBROKERS. Reliable information can be obtained as to purchase and sale of shares.

Offices of the Ellen United Copper and Zinc Mining Company (Limited), and Hazael Grove Silver-Lead Mining Company (Limited). THOMAS MOLYNEUX, secretary, 28, Princess-street, Manchester.

NORTH OF ENGLAND MINING AND ENGINEERING OFFICES, MANCHESTER.

MESSRS. HARVEY AND CO., MINING ENGINEERS, AGENTS, AND SHAREDEALERS, CLARENCE CHAMBERS, MANCHESTER, are at all times in a position to deal in all the market Dividend and Progressive Mine shares, and also to advise on all mining matters, being practically acquainted with the business, and having a daily communication from the mining districts of Devon and Cornwall.

Messrs. HARVEY and Co. publish a monthly "Mining Circular," containing a valuable summary of mining information. Subscription, 6s. per year.

Bankers: The Consolidated, Manchester; and the Alliance, Lothbury, London.

MESSRS. HARVEY AND CO., of CLARENCE CHAMBERS, MANCHESTER, are anxious to state that they have NO CONNECTION with HARVEY AND CO., of HAYLE, and recently of Clarence Chambers, London, who supply mine materials.

MANCHESTER, AND WEST END OF LONDON.

MR. W. HANNAM, MINING, SLATE QUARRYING, INSURANCE, AND GENERAL SHAREBROKER.

ROYAL INSURANCE BUILDINGS, KING STREET MANCHESTER; and 31, REGENT STREET, LONDON, S.W.

INSTANTANEOUS COMMUNICATION with the STOCK and MINING EXCHANGES, avoiding the delay and annoyance of visiting the City to ascertain prices. A Monthly Investment Circular on application.

CAPT. J. RABEY OFFERS FOR SALE FIFTY SHARES, at the nett price of £3 per share, in the CAI-R-PANT MINE, joining the great Minera Mine, and one of the best prospects in the district, being all whole ground, and the mine paying for itself now at the shallow depth of 40 yards.—Address, Capt. J. Rabey, Coedporth, near Wrexham, Denbighshire, North Wales.

CAPT. RICH, BODMIN, CORNWALL, being in the centre of the mining districts of Devon and Cornwall, and having had 25 years' experience in the management and inspection of mines, OFFERS HIS SERVICES to INSPECT and REPORT on MINES in either of the above counties. Orders promptly attended to.

ROBERT LIBBY AND SON, MINE AND SHAREDEALERS, &c., CAMBORNE, CORNWALL.

NEW LOVELL.—We recommended the immediate purchase of these shares, as the mine has considerably improved of late, and adjoins the famous rich East Lovell. For particulars, apply to R. LIBBY and SON.

Mines inspected by competent agents.

BEARDWOOD, JONES, AND CO., 17, CANNING CHAMBERS (Opposite the Custom House), LIVERPOOL, FORWARDING, COMMISSION, AND SHIPPING AGENTS.

Being intimately acquainted with the shipping of Iron, Hardware, Crates, &c., to all ports, we can offer superior advantages to Merchants and Manufacturers, both in low freights and moderate shipping charges. Marine Insurance effected.

MR. THOMAS SPARGO, of 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., will LEAVE for the ISLE OF MAN the LATTER PART of the ENSUING WEEK. Mr. SPARGO will inspect the various mines in the island. All letters, on and after Thursday next, directed to him at Castle Mona Hotel, Douglas, Isle of Man, will meet with prompt attention.

BRITISH AND FOREIGN INVESTMENT.—Mr. THOMAS SPARGO, 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., TRANSACTS EVERY DESCRIPTION of BUSINESS in the PURCHASE and SALE of SHARES in BANKS, CANALS, MINES, RAILWAYS, BRIDGES, INSURANCES, and ALL OTHER DESCRIPTIONS of BRITISH and FOREIGN STOCK.

Mr. SPARGO has 20 years' experience of mining, ten of which he was engaged in practical mining, and ten years he has transacted business in mining shares and stock, at 224 and 225, Gresham House, Old Broad-street, City, E.C.

Bankers: London and Metropolitan and Provincial Bank (Limited).

NEWSPAPER STAMP PENNY

Original Correspondence.

THE DURATION OF OUR COAL FIELDS.

SIR,—The masterly speech of Mr. Hussey Vivian in the House of Commons, upon the occasion of his moving the appointment of the Royal Commission, to which you referred in last week's Journal, has placed the public in possession of a large amount of fact connected with the question of the probable duration of our coal fields, and I have little doubt that there are many practical men who would readily impart additional information, the result of experience, but from the very reasonable fear that they may be drawn into a newspaper discussion. You will, therefore, perhaps, permit me to suggest that communications on the subject would be very desirable, and may prove not only of interest to the general public, but valuable to those officially engaged in the enquiry. Of course, there will be found partisans of the Geological Survey doctrines, of which Messrs. Hull and Jevons may be regarded as the exponents, as well as partisans of the practical men who understand the case in all its bearings, and therefore, to facilitate the matter, I have arranged some of the chief questions upon which evidence is required:—

1.—Mr. Hussey Vivian maintains, and the Geological Survey denies, that mining can be carried to a greater depth than 4000 feet.

2.—Evidence is required as to the probable average annual consumption during the next (say) one hundred years.

3.—Mr. Hussey Vivian denies, and the Geological Survey maintains, that the temperature of deep mines is, other things being equal, higher than that of shallow ones.

4.—Confirmation or refutation of Mr. Joseph Dickinson's theory is wanted. Mr. Dickinson states that the gases in the coal mines are of great tension, and observes that in the laws of Nature possibly there may be a compensating principle. He thinks that possibly the additional heat of the strata might be taken off by the great tension of the gases, and that so, one of the laws of Nature might balance another.

5.—Mr. Hussey Vivian, on the authority of Mr. George Elliot, denies, and the Geological Survey maintains, that the coal lying at great depths is more dense through the pressure of the superincumbent strata.

6.—Mr. Hussey Vivian maintains, and the Geological Survey denies, that it is easier to ventilate a deep mine than a shallow one.

7.—The data for an estimate as to the probable cost per ton of producing coal from seams situated at a depth of 2000 feet, 4000 feet, 6000 feet, 8000 feet, and 10,000 feet, are required.

8.—Mr. Hussey Vivian denies, and the Geological Survey maintains, that we have reached the limit of improvement in machinery.

9.—What are the probabilities of the consumption of coal increasing, either for domestic or manufacturing purposes?

10.—At what period, and in what order, will foreign countries become independent of England for their supply of coal, and what will be the result?

If these questions be fully discussed and understood, all misgivings on the subject will be removed from the minds of the general public, and they will appreciate Mr. Hussey Vivian's remark, which only expresses the view of every man of business, that "the opinions to which he had alluded had been brought forward so prominently in the books which had terrified the country, that he deemed it right to refute the statements which had been made."

"Elfin," a well-known writer in the *Newcastle Chronicle*, says:—

"The Royal Commission to enquire into the coal supply of the country should be of the greatest importance to our part of the world, especially if the Commission should have practical men on it. . . . . We want such men on the Commission as Mr. T. E. Foster, or Mr. Daglish, men with practical knowledge, who know something about the inside of a pit, the cost of 'winding' coals from bottom to top, and other such common-place subjects. Questions of ventilation, sinking, and even of driving under the sea, should be well understood and discussed. We have been going on in a thriftless, stupid fashion in our consumption of coals for years. During the past 20 years we have sent millions of tons of fuel up our factory chimneys unconsumed, to pollute the atmosphere and injure the public health; and we are getting very little better in that respect. A strict enquiry should be made by the Commissioners under that head also. In fact, the enquiry is full of practical points, if they are properly taken up."

Durham, June 19. H.

COAL UNDER THE MAGNESIAN FORMATION.

SIR,—It has been allowed by many that on the Continent coal is not at all confined to the carboniferous formation, but is found in great abundance in the oolitic and the tertiary formations. Perhaps further operations and examinations may tend much to remove that which at present may appear incongruous and unharmonious in the science of geology, or, at least, in the reading and interpretation of its internal characters, and may ultimately prove that these large deposits of bituminous coal are peculiar to the carboniferous formation only. But in whatever formation these continental and foreign coal beds may repose, it is an admitted fact that all bituminous coal of a workable quality in the British isles is limited to the carboniferous system; and where such is not overlaid by other succeeding formations, its contents are more easily rendered manifest. Seeing that coal occupies with us a position peculiar to this formation, we are led to consider some of the natural features connected therewith as being of the greatest utility in assisting at arriving at a correct estimate of the nature, quality, and extent of the mineral sought.

The contents of the earth, although composed of materials of a mixed and extremely varied character, are nevertheless not as they appear to a casual observer—scattered and thrown together in an irregular and disorderly manner, so as to constitute one huge mass of confusion. On the contrary, they are arranged so that, by observation, they have been reduced to a system which shows the relative position which each holds to the other; although it does not necessarily follow that such are ever to be found present in regular consecutive order, but only when they exist at all they may be expected in the order of succession, and maintain their regularity to each other. It very frequently occurs that a whole group is entirely absent, through one cause or another; in which case the succeeding system will follow in consecutive order. And when once a formation is absent in its regular succession, it has never been found to have taken up or held any other position in the stratification. From this we are led to consider the features connected with each formation—when they are of a character sufficient to distinctly define its relative age and position in the earth as the essentials of this science.

The natural phenomenon presented by the carboniferous group is, perhaps, of all others the most distinct and unmistakeable, both in the natural features which it presents, as well as in the internal composition of its rocks. The abundance of vegetable remains in its fossil flora manifests a period of organic life peculiar to itself, and when once known will not be mistaken for any other of a different formation. But to ascertain and judge the strata from the organic fosils, with a view to their classification, is a work only to be encountered by the energy, perseverance, and genius of such men as Sir R. I. Murchison and others, who have made this science a subject of particular thought and attention; and upon such would have necessarily devolved the labour required in defining the geological boundaries or limits of our own coal-bearing measures, had this group not possessed some natural phenomena, sufficient to distinguish it from any other, and to divide it into sections, by the prominent and distinct features which it presents.

I may briefly state that the sections which this group is divided into are the lower coal measures, the mountain or fell top limestone, and the true or upper coal measures. These, again, have been subdivided, but being unnecessary to the question before us, we will not notice such subdivision. When these three groups are developed, the lower coal measures rest immediately upon the Old Red Sandstone; then follows the mountain limestone; after which the true, or upper, coal measures; and above the whole formation, resting immediately upon it, is the Permian formation, or magnesian limestone. From this we observe that the true measures, from which we draw our great supply of coal, rest between the mountain limestone on the one side as a limit to its existence, and the magnesian limestone on the other as a guide to its depth at a workable distance; and, when known to be present, may be expected to dip underneath it, until it attains a thickness of overlying strata sufficient to place it beyond a vertical limit for human endurance, with the means at present at our disposal.

The position which the mountain limestone occupies, and the appearances which it variously presents on the mountain range, forming bold escarpments on the top, as implied by its name (fell top limestone), render it one of the most distinct and unmistakeable strata in the whole crust, and as such may always be taken as a base from which succeeding strata may be classed; for when the lower measures may be considered productive of coal, it is in close proximity to it that observations may be taken for ascertaining the same, as they lie immediately underneath it; whereas the upper measures occupy a more distant position to it, as a stratum belonging to its subdivision intervenes, called the millstone grit, an exceedingly coarse-grained sandstone: and when once this presents its appearance at the outcrop it is sufficient to warrant the abandonment of all further operations in the search for coal, as this rests, when present, conformably between the mountain limestone and the true measures.

From the foregoing observations, together with the millstone grit, or the mountain limestone where the former may be absent, as a known limit to the existence of coal, we may be permitted to assume that in like proportion to the lateral distance existing between the magnesian limestone and the millstone grit will be the vertical thickness of the coal measures. And as these two limestones are well-defined boundaries, running north and south through England—the one on the east side of the coal field, by which the presence of coal or otherwise may be ascertained; and the other on the western side, as a limit to its presence.

Various reports have been circulated, and opinions have been as variously expressed, regarding the probability of a good coal field being in existence in the North Riding of Yorkshire, arising, no doubt, from the abrupt manner in which we find the termination of the northern coal field at its southern boundary, and the Yorkshire coal field at its northern boundary, together with the great similarity of the measures of each in the aggregate.

It was stated recently that borings had been made to the west of the Hamilton hills, in the North Riding, and that a thin seam of coal had been got near to Thirsk, with a prospect of more being obtained by further explorations. How far the hope raised by this discovery may be realised it is difficult to anticipate, or to hazard an opinion. A friend of mine recently informed me that he had traced a thin seam of coal, accompanied by rich ironstone bands, to the north-west of Harrogate, and expressed himself as being satisfied that coal of a good workable thickness would be got in the North Riding. But I am strongly of opinion, from the evidence of the relative position in which the magnesian limestone holds to the millstone grit, and what may be thought more clear and unmistakeable, the mountain limestone, throughout this district, that it may be assumed that no very large extent (vertically) of the coal measures can exist, owing to that portion of the measures that has ever yielded an abundant supply of good coal being absent, having only the lowest shales belonging to them, with their thin seams, present, and which might be expected to manifest themselves at the outcrop. Such may tend very much to allure those interested into expending large sums of money in searching for that which I have little hesitation in expressing a doubt of ever being found, at least of that extent to warrant any large amount of capital being expended to obtain it in those situations where the magnesian limestone is found to hold an approximate position to the mountain limestone.

To render this more clear and lucid, it may be convenient to take a geological view of the natural phenomena variously presented by the relative positions which these two (the magnesian and mountain) limestones hold to each other in their outcrop. It is now generally admitted that all these formations have their origin in deposition, and that at a subsequent period a part of such deposits has been swept away by denudation, prior to the deposition of the next consecutive formation. This is made evident throughout the systems, in the whole stratification, by observing that in places formations partially denuded, the only evidence of their existence, is manifested in the development of the same stratum on either side, presenting in appearance as well as in character a line of stratification continuous at the time of the deposition of the same.

This view will refer particularly to the position of the two limestones in the North Riding of Yorkshire; the geographical position in which we find the magnesian limestone outcrops, which occupies a line commencing at the mouth of the Tyne, bearing to the west as it approaches the county of Yorkshire, as far as Pearce Bridge, on the Tees, a distance from the coast of about 35 miles, such westerly direction gradually reducing the distance between the outcrop of the two limestones, until their nearest approach is attained, which is found in the southern part of Durham and in the North Riding of Yorkshire; and as it nears the West Riding the course is again diverted to a more easternly direction, which, again, allows the coal measures to gradually assume their mineral and commercial character, until they find their full development again, similar to the northern coal measures.

As I stated before, the magnesian limestone puts on at a point at the mouth of the Tyne. The coal measures here are considered to be as fully developed as in any part of that important coal field. They gradually rise to the north and west, in which direction the seams of coal are regularly cropped out; whereas in a southern direction the seams of coal are as regularly cut off by the magnesian limestone. As we find in the eastern and southern portions of the Auckland district the magnesian limestone reposing upon the lowest seams in this series, the upper ones being entirely absent, and no doubt but these lower seams will, in like manner with the others, be cut off as the limestone approaches the outcrop of the millstone grit. From the point where the lower seam is found to be absent in the county of Durham, along the outcrop of the magnesian limestone, such line will be found to occupy an irregular distance from the mountain limestone, but yet at no point will the distance be found sufficient to hold any great thickness of the coal measures, until it approaches the Leeds district, where its course again changes eastward, in which direction we find the lowest seams, immediately under it, first developed, afterwards in regular order the others, until we have the whole measures fully developed, the same as in the northern coal field. The phenomenon presented in the North Riding with respect to the coal measures being nearly absent will, no doubt, affect nearly all other coal fields when found in the same relative aspect.

The natural geological features which are variously presented to us, with their associations made manifest by observation, in mining operations may prove of some assistance in developing our coal fields more fully than they are at present known to be. Such assistance is much to be desired at any time, but particularly at the present, for no doubt a time will come when to save large sums of money from useless expenditure the knowledge which this science professes to supply will be of the greatest service. And, apart from the pleasure it affords as a speculative science, it is capable of, and no doubt is destined to furnish with valuable data, information, and assistance those who will devote a little time and labour to the study of it, both practically and theoretically.

Let it be understood I do not mean that science ought to take the position of, or even to interfere with, the practical operations of coal mining. Its position being a relative one, it can only be employed as such—as an auxiliary, to assist at times when such can be employed with the advantage it is capable of affording. And no doubt but the adjunction of science with that amount of practical information known to exist in the mining faculty will ultimately prove of service and utility in exploring and developing our coal formation.

Kippax Colliery, June 16. C. HODGSON.

BASTIER'S CHAIN PUMP.

SIR,—I noticed in the Journal of June 9 extracts from a paper read at the North of England Institute of Mining Engineers, at Newcastle, by Mr. T. Greener, of Darlington, purporting to establish the superiority of "Bastier's Chain Pump" over the present mode of raising water from mines—by the plunger or bucket-lifts. Mining, it must be allowed, has arrived at a great state of perfection, and those parties engaged in the development of any mineral property are always most anxious to avail themselves of any invention to assist them to do so in the cheapest and, at the same time, most lasting method possible. Not wishing to depreciate Mr. Bastier's invention, it is obvious were the qualities of his pump superior to that class of pump at present in use its value certainly would have been more appreciated than it appears to have been, by being used in some of the many mines that have been opened up within the last 10 years. I cannot well understand how Mr. Bastier claims his method as "entirely new;" his pump is nothing more than an improvement on the old principle, which can be proved to be one of the oldest classes of pump known, remnants of which have been found in clearing up several of the old Cornish tin mines. It was designated the "Rag and Chain Pump," and was worked by bunches of skin made fast to the chains at given distances, and which served the purpose, though perhaps not so well as the more improved disc used by Mr. Bastier, the rest of the gear being on the same principle as that used for the Bastier pump. Were Mr. Bastier to travel through Portugal and Spain he would in a day's ride pass many of this class of pump worked by oxen, used for raising water for the vineyards, and which, I believe, answer very well for a shallow depth. Instead of a "disc working in an enamelled barrel," they use balls of wood, leathered round, so as to fit the working barrel properly, the rest of the arrangements being similar to those used in Mr. Bastier's pump; and so well do they act, that the water will stand to the collar launder for hours when the pump is idle. Therefore, it appears to me that Mr. Bastier is only introducing an old class of pump on an improved principle. ALFRED POOLE, M.E.

Camden-road Villas.

THE LAKE SUPERIOR COPPER MINING DISTRICT.

SIR,—The first steamboat of the season came round Keweenaw Point on May 11. It might be supposed that boats arriving or sailing have but little to do with mines or miners. Anyone, however, who has passed a winter on Lake Superior knows that the arrival of the first boat is anxiously looked for. The mine from which I write faces the Lake, and in ten minutes after it was known that the boat was in sight scarcely that number of miners could be found at work. Contract men quit right off, company account men at the first chance; tools were dropped; holes partly drilled left till to-morrow; loose ground left to hang or fall of its own accord; timberwork in progress left to lie over. Everybody wanted to conform to old rules, and keep a holiday, and in a few minutes from 50 to 60 men poured out of the mine. The first fall of snow for the winter, of any consequence, was on Nov. 29, 1865. Navigation of the lakes was virtually closed at that date, and travelling by steamer was not considered advisable for a week or two previous, so that in a certain sense, from that time up to the present, we have been shut out from the world in general. Going through overland is always practicable in winter, but it is neither pleasant or inexpensive. This, then, is one reason why the appearance of the first boat is hailed with so much pleasure. Eatables, too, in some locations are almost run out. Flour and beef have been scarce. Butter not to be got. Other reasons might be adduced, but the latter must especially be considered a good one, when it is known that our supplies are brought by the boats.

The opening of navigation is several days later than usual, owing to the coast being surrounded with ice, which this year is unusually thick—from 4 to 5 ft. It had not disappeared on the 11th, detached pieces being floating about for miles in length. The winter, on the whole, has been considered short, and the fall of snow moderate. The actual snowfall I cannot tell, but the greatest depth of snow in the woods, as near as I could judge, was about 5 feet. For severity of cold we have had at least an average season, the thermometer for several days ranging as low as 25° below zero.

Ordinary work in the mines is carried on in winter as in any other season of the year, the greatest amount of trouble arising from the accumulation of ice in the shafts: this has frequently to be cut away, otherwise pumping and hoisting must stop. Special care has to be taken to prevent the water in the pumps from freezing. The lift is commonly boxed up near the surface, and filled about with manure. Trap-doors are placed in the levels, and with these precautions, and the engine only stopping half-an-hour at a time, in the mine where I was employed, the water in an 8-inch plunger-lift was frozen solid for 60 feet down from the collar launder in one night.

When navigation closes, miners in general feel that they would like to work the winter in one district; a few dollars a month extra in the mines of another section does not induce them to travel so easily as when the boats are running. The feeling expressed is—"Well, we'll try to rub out till the boats come up, and then go below." "Below" is the Lake Superior miners' Arcadia; down below he is going to realise all that he lacks up here. In the spring down he goes, and after travelling till almost the last dollar is spent, comes up again. At this time of the year an excitement usually prevails respecting some particular place, the more distant the more attractive, of course. This spring no place is mentioned as being very alluring. Vermillion Lake Gold Diggings, in Minesota, would attract a good many, if anything positive respecting the prospects were known. Colorado and California now seem to have the preference, the coal and iron mines of the lower States being rated next.

Miners' wages in any part of the United States at this time, taking the cost of living into consideration, are higher than on the Lakes. The dulness of the copper market, and the stoppage of two important mines in this county, accounts for this. Pay ranges from $40 to $50 per month. Board costs from $16 to $20. Possibly wages may not advance, though I am inclined to think different, but provisions and stores must recede in price till they become more proportionate to the earnings of the people. During the winter, prices on the Lake have averaged 20 per cent. higher than the rate quoted in the Eastern markets. The merchants are governed by the supply and demand here, and they take care of getting an excess; and until this region is accessible by railway, the bulk of the population—especially in mines where the company have no store—will be always liable to imposition in winter.

The opening of the Lakes is a signal for a fall in the price of copper; the accumulated stock of the winter will be sent down immediately, and in many cases thrust on the market, to recuperate exhausted, or nearly exhausted, treasuries. The quoted price for the metal now is 28 cents per lb., but if the spring shipments can be got off at 2 cents per lb. less, that will be as high as most mining men expect. Since the fall of last year, and during the excitement got up on the blockade of the Chilian ports, copper stood at 45 cents; the want of a railroad rendered it all but impossible to put copper in the market at that time.

In referring to the stoppage of two mines in this county, I might inform you how this sort of thing is sometimes conducted. The same company held the leading interest in both mines. One of them, though rather poor, deserved a further development; the other is in a position to meet expenses, and has all the necessary machinery and erections that will be required for years. Without any previous notice, orders were received to measure all contracts, and suspend operations. At the same time an announcement was made that the company had made an assignment of the property, which is said to be more than ample to meet all liabilities, and protested their paper. The stagnation produced can scarcely be understood, except by those on the ground. What makes matters worse, is the system commonly pursued of issuing small drafts, such as $5 and $10; these remain for a considerable time in circulation, and are used as currency in the locality of the different mines. I have no doubt but that eventually the company will meet their indebtedness, possibly, in a month or two, perhaps not for a year, at any rate not until the majority of working men have parted with their drafts at a very heavy discount.

I hope that I shall have something more interesting to communicate in my next.—*Keweenaw County, Michigan, May* 14. MINER.

PROOF OF SLATES BY FIRE.

MANAGEMENT OF QUARRIES AND QUARRY ACCOUNTS.

SIR,—When a writer in a public paper makes a statement which is afterwards questioned, whether it be a scientific opinion put forth without evidence or argument to prove its correctness, or a fact asserted the accuracy of which is denied, I have always considered it incumbent on the individual whose statement is impugned either to vindicate his position or to admit his errors. The Welsh Eagle has not attempted to maintain his assertion, that "this proof of slate by fire is no guide to its durability, quite the reverse," although I have waited now for two successive weeks for his reappearance in the Journal in defence of such a wild statement. When the Eagle launched forth his formidable arrow against your correspondents, who were simply ventilating an interesting fact, in which, it might be thought, all slate quarry proprietors would feel concerned, he must have known, surely, whether he had any and what grounds for pub-

lishing so positive a contradiction to what your correspondents believed to be an important fact.

Now that he has been challenged to the proof he has not a word in reply, and the only conclusion to which I can come is this—that he never had any foundation for the statement, and that he is incapable of discussing such a question in any form whatever. In this, as well as in a multitude of other matters, he has evidently, from his ambush in the clouds, or, more probably, among the bullrushes, been having a fling at "somebody," like a dissatisfied Irishman; believing, probably, as he naturally might, that all his rhodomontade would go unquestioned, and that at length he would be regarded, not only as the Eagle but the Oracle of Wales. All classes of his countrymen have been libelled by this anonymous writer, and even the dead have not been allowed to repose without having had cast upon them the vulgar and unseemly reflections of a man who had not even the courage or honesty to append his name to the concoctions of himself and another, and who never will challenge public criticism by allowing his name to appear as the author. Of one poor gentleman who has passed away he said, in his letter of March 3, "But he is gone where he can make no more mischief, and his concerns are a monument of his ignorance." Of another gentleman he said, in the same letter—"And he, like the other, is laid in oblivion, as well as his maps and plans." Of the multitude of libels on his own countrymen, managers and quarrymen, I must defer a notice, in order to keep within the limits of my programme, and take them in order; but this I may observe, *en passant*, that if one-half he states of his own countrymen be true, then, with Mr. Baron Bramwell, I may well wonder that Englishmen are to be found bold enough to invest their capital in Wales, and leave its disposition to Welsh managers. I do not believe in his sweeping denunciations of his countrymen, or I could not trust any of them. I have had as much experience of them as most men, and I know the real worth of a great many of them.

There is a deal of truth in old proverbs; one is—"The worst spoke in the wheel creaks first." Will this proverb apply to the Eagle? We shall see by-and-bye when we come to probe him and his boasted management a little closer, and get at something more than myths—names of quarries and particulars. I shall issue a lithographed copy of quarry accounts kept by, and upon, the Eagle's most "improved" plan, showing how upon paper to convert a real loss of 100*l.* a month into a large profit. I must postpone details and accounts until next week.—*Carnarvon, June* 21. THOMAS HARVEY.

THE LATE EXPLOSION AT WHEAL UNY.

SIR,—Annexed we beg to hand you copy of a report on the recent boiler explosion at Wheal Uny, by Mr. L. E. Fletcher, chief engineer to the Manchester Steam Boiler Association, from particulars furnished him by us.—*Redruth, June* 18. J. HOCKING AND SON.

"I gather from your letter that the safety-valve was free at the time of the explosion, and that the pressure of steam was little, if any, in excess of 40 lbs.; possibly 1 lb. or so from blowing-off. Taking this to be the case, I cannot doubt but that this flue collapsed simply from weakness. You will observe it did not fall over the fire, where it would have suffered most severely from shortness of water. I have no hesitation in saying that all boilers with as large a flue as this one had—4 ft., and 30 ft. 8 in. long, made of 7-16ths plate—can only be worked with steam of 40 lbs. on the square inch at considerable risk. All such flues should certainly be strengthened with encircling hoops, and the sooner this is done the better. I do not doubt that many might work on, and escape explosion, for many years, but you are aware that boiler-work is never very accurate, and many flues that appear to the eye and pass as being quite round, would be found on measurement to be as much as an inch, or upwards, out of truth; thus the line of thrust passes completely outside the metal, which, instead of being fairly in compression, as it should be, is subject to a girder strain; thus the principle of the arch is at once lost, and the power of resistance in the tube very much reduced. These variations in the shape of the tubes will account for the apparent anomaly of some boilers falling while others do not."

ON TIN MINING, AND THE TIN TRADE.

SIR,—The present depressed state of tin mining seems to have roused up the latent feelings of the mining community for information respecting the mineral resources of the Dutch East India possessions, and of their congeners, the private companies, whose emporium is Singapore; and a commission has been proposed to visit those countries to ascertain, according to the expression of one writer, whether tin mining in Cornwall is worth being pursued any further or not. It cannot be denied that, although the subject is one of the highest importance to the Cornish miner, it is one which, at present, is shrouded in great obscurity; and although we cannot share in the fears of those who seem to think that the Dutch Government can monopolise the tin trade of the world, yet we should be heartily glad to see the subject thoroughly ventilated, believing, as we do, that there are persons in Cornwall who, having visited those countries, could greatly assist in doing so.

The reason of the present low price of tin is sufficiently evident. its market value has ranged high for several years past. The tin miner in all parts of the world has been stimulated to extend his operations. Abandoned mines in Cornwall have been reworked; new mines have sprung up in all directions; exhausted copper mines have proved largely productive of tin in depth; in all mines tin has been eagerly sought after; stamping-engines have been multiplied; whilst the Dutchman, quite as wide awake to his own benefit as his neighbours, hastened to share in such a remunerative pursuit. The natural consequence has been that the supply has exceeded the demand, and this, coupled with the present monetary distress, and other disturbing causes, has produced the mining panic.

It is a well-known axiom in physical science that action and reaction are equal, and we may see a very fair illustration of the truth of this in the present price of tin, for if we take its normal price at about 60*l.* per ton, which, perhaps, is about the average of the last 20 years (and which price, we think, will be allowed would be remunerative to the miner, but not sufficient to induce an over-production), and compare it with the 75*l.* and 80*l.* per ton paid not long since, there need be no surprise manifested at finding it at 45*l.* per ton—its present miserable value. But this also must have an end, and the preliminary steps for its accomplishment are being forced on us in no gentle manner. The fact of there being from 60 to 70 steam-engines now for sale in this county, and a large number of others to be added to the list in a very short time, from mines that must necessarily be abandoned also, is sufficient to convince even the most sceptical that the day of over-production, as far as this county is concerned, is rapidly drawing to a close; and if our information is correct, many of the poorer of the stream-works in Banca and elsewhere will also have to be abandoned, so that if the Cornish miner can manage to tide over the present difficulty, we may again expect better times. Mention has also been made in two or three newspapers of the recent visit of two Dutch Government engineers to this county. Having had the pleasure of forming the acquaintance of these gentlemen, and gleaning from them some information respecting the stream-works in Banca and the neighbouring islands, perhaps the following information may not be inappropriate. The principal portion of the tin sold by the Dutch Trading Company, who act as agents for the Government in the disposal of the products of the colonies, which are a Government monopoly, is raised in the Island of Banca, but some tin is raised in the neighbouring islands.

A geological survey of Banca has been completed, and the area of the tin-producing districts ascertained. The actual presence of tin is ascertained by boring, which, it will be observed, is a step in advance of the obsolete modes to which our Cornish streamers adhere with so much pertinacity. After this the woods are felled, and the removal of the alluvial deposits commences. The tin is generally found lying on the surface of the granite rock, but it is well ascertained that the richer deposits of tin are already exhausted. The labourers employed are principally Chinese emigrants, who work the ground on a kind of tribute system, receiving from the Government a certain price for all the tin they can raise; the curious part of the business being, that each gang of Chinese smelt their own tin, so that it is rendered by them as white tin, and not oxide of tin, as is the case in Cornwall, but in other respects the resemblance to the Cornish tribute system is more perfect. Subsist is literally advanced to the Chinese in the shape of rice and other necessaries, and it frequently happens that the yield of tin is not sufficient to repay the advances, but whether their bal bills are written with red ink or not we are not prepared to say.

There is no stamping required, neither are there generally streams of water to drive stamping-mills, even if they were wanted. The tin is smelted by wood fuel, and the slags contain so little tin that the Dutch officials consider that they are not worth taking any further notice of, a fact in itself which says much for the industry and shrewdness of the amateur smelter, and dispels much of the mystery connected with tin smelting in any country.

The great increase of late years in the yield of tin seems to be owing to the introduction of Chinese in large numbers, who are much more industrious than the natives of these islands, and the great stimulus received from the continued high prices of the metal.

It is satisfactory to know that, although the strictest search has been made by the Dutch engineers, they have not yet succeeded in discovering any lodes worth working, the veins they have found being both small and poor; and that even if lodes should be discovered, they must be very productive to repay the cost of regular mining. Steam-power would have to be employed for all purposes, and a class of artizans and miners sent from Europe to carry out the operations. In countries where there are no roads, and scarcely any facilities for mining, coupled with a climate which few European constitutions can withstand, the difficulties of mining for a metal like tin, which requires so many processes to go through before it becomes a marketable commodity, can only be appreciated by those who know what foreign mining really means.

It must be understood that as there are no mines of any description in Holland, and that the mining in the German province of Limbourg is confined to coals only, the Dutch engineers are under the necessity of studying mining in foreign countries, and after giving the mining cadets a sound scientific education at home, send them into various countries to acquire their knowledge of practical details, Germany being their principal place of residence.

On reaching the Indies, the juniors act under the direction of those engineers who have been in the country for some years previously, so that their training is tolerably effective. With reference to the gentlemen who lately visited Cornwall, we are bound to say that they were both of them men of ability, possessed a large fund of information on mining subjects generally, and will, no doubt, be found capable of efficiently discharging their duties.

Trewirgie, Redruth, June 19. MICHELL AND JENKIN, Mining Engineers.

PROSPECTS OF THE MINING AND METAL MARKETS.

SIR,—I am glad to see Mr. Ennor's name again in the Journal as a correspondent, more particularly as he is a well-known and able advocate of legitimate mining and miners, a determined opposer of humbug and exposer of humbugs in the science of mining; and that, though he differs from me on some points of my letter, he yet admits others to be correct. He well knows that mining of late has been conducted on such absolutely false principles, and has been so trumped up—not for legitimate mining pursuits—that it has almost become a byeword and a bugbear; it has been made the stalking horse and the catspaw for a set of knaves, who have foisted upon the public, through the medium of verbose and grandiloquent prospectuses, filled with opinions and reports of professors and scientific quidnuncs, many of whom do not assert that they have ever even seen the mines or properties they write of, but judge from the bits of stone or specimens of ore they examine or assay.

"Distance lends enchantment." The old axiom is appropriate as ever, for the greater that is the more is the scheme approved of, provided a F.R.S. says it is likely to do well, or a F.G.S., who absolutely does not know a sandstone from a granite, says it is a congenial formation. Mr. Ennor's stricture on such professors is not at all over charged or unduly severe. I myself have seen a F.R.S., and a F.G.S., too, examine a lode of grey ore in West Basset Mine *in situ*, and declare he never saw a finer end of tin in his life; and I have, within the last two years, known several F.G.S.'s made, not because of their abilities or experience in either geology, mineralogy, or any other scientific attainments, but solely because of an introduction by a clique, and their being able to pay the introduction fees and subscriptions. Now, all this would be very well, and very innocent folly, provided it did not lead to mischief—aye, incalculable mischief. An unsophisticated person, in his simplicity, might (simple soul) be deceived (very naturally, too) by the magic initials, F.R.S., and suppose the party using them was entitled to do so from some especial acquirements on the subject on which he gives his weighty opinion. I know there are parties who have sought and obtained the distinctive letters for the mere purpose of show, if nothing worse. To the wary adventurer and to the fortunate speculator they act as a beacon and protector—they prefer a Practical's to a Professor's opinion, and are seldom deceived thereby.

Mr. Ennor says (and I coincide in his views) that the best men are leaving the country; in fact, they would be fools to stay at home for the comparatively small salaries, the snubbing, and often insulting treatment they receive at the hands of self-elected, dictatorial, and ignorant committees, and the utter inattention they experience at the hands of those who are in office or have public emoluments and honours to bestow, except they be favourites or toadies to them. "They manage things better in France;" there the decoration is sometimes given to humble but distinguished talent and experience. Never is it conferred in England especially on her most industrious and dangerously employed sons—we mean by these terms her mining population. True, these avocations necessitate hard work, rough hands, and, in some degree, a rude appearance, little suited to dance attendance in a drawing-room, or to make nonsensical post prandial orations, but whose experience proves the real sources of these people's enjoyments and England's greatness.

Again, Mr. Ennor's unanswerable arguments as to the *bona fide* benefits resulting from home mining should carry conviction to the philanthropic, aid to the patriot, to the capitalist an inducement, and to the zealous encouragement. Time will come—yea, it is at hand, or I am deceived—when these considerations will force themselves upon all these parties, when self-interest will be the all-powerful lever, when the public will see the folly of fostering foreign bubbles, and pretending professors in their true light, and when, I hope, it will not be too late to retrace our steps.

Mr. Ennor knows well that there are plenty of excellent setts unwrought and disregarded in these kingdoms—for I have been on the spots with him—which could have been wrought to advantage could the land proprietors be induced to accept such terms as miners could afford to accede to, and could capital be raised to an adequate extent for home mining development. I have seen Mr. Ennor contemplate with wonder and surprise that such stones of silver ore could lie unheeded, or such opportunities be neglected, but was informed the lord (too rich to be not avaricious) required one-seventh of the money returns, free of cost of dressing or carriage, as dues. Mr. Ennor also expressed his opinion that one-third of the silver portion of the lead was destroyed and washed down the river by ignorant manipulation and defective machinery. Other cases equally palpable he has witnessed in my presence; but it is at present impossible to move stolidity, or to extinguish avarice. In addition to all these obstacles, there yet remains another—apathy, and a fatal disinclination to believe in the existence of mineral in certain situations, because, forsooth, they have never been produced. Now, the most experienced or sanguine miner never witnessed the fact of mineral treasures jumping out of the ground, or ever realised the Yankee's expression of the pigs with the knife and fork in their backs, crying "Come, eat me!" but they do witness evidences of success and display, appearances known to the practical, but which are as a stumbling block and foolishness to the professors.

In no part of the three kingdoms is this fatal want of confidence in home production so manifest as in Ireland, notwithstanding her proved surpassingly rich produce, and the success attending her properly developed copper mines. Better days are, however, dawning for Ireland, and I sincerely hope that such men as Mr. Ennor will lend aid to such a deserving and good cause.

When the barriers to success in British mining shall have been removed and miners receive their just due, when capitalists shall see their error and learn true wisdom, I have hope, and not fear, for British mining industry, and I believe Mr. Ennor will also endorse that sentiment.

Mr. Ennor quotes the case of Masterman's bank as suffering from losses, and the ruin of many parties, by their partiality to encouraging foreign adventure. I wonder how many thousands have been expended in a favourite hobby of the day—petroleum raising and distillation abroad—when not a shilling would be advanced for an undertaking of the sort at home, though the British were shown, and have proved, to be great successes, and the foreign as signal failures. To these might be quoted many other parallel instances, from which the innocent suffered. *Ex uno disce omnes.* J. J. M.

CREASE'S IMPROVED BORING MACHINES.

SIR,—The position of the mining interest at the present moment rendering it highly desirable that the utmost economy should be exercised, it is remarkable that so little attention has been turned to the use of machinery instead of hand labour in sinking shafts and driving levels. Now, from the confidence which Mr. Crease has in his machine, I presume that its advantages only require to be made known to secure its general use, so that there is no fear of its being classed among the unpractical contrivances of which so much has been heard. Under these circumstances I would advise Mr. Crease to make known through the Journal the name of any mine in which his machine is at work, so that adventurers may send their agents to ascertain its applicability to the particular mines in which they are interested, But inventors too often expect the public to accept their views of the value of a machine, and, therefore, neglect the very necessary steps to secure its adoption.

I am not aware that any mechanical description of Mr. Crease's machine, as last improved, has yet been published in the Journal, and without these details it is difficult to form any correct opinion as to the probabilities of success being achieved. The engineering data given in last week's Journal rather confuses the matter than otherwise, for his conclusions do not follow from his premises. It would appear from Mr. Crease's statement that he requires 15 lbs. pressure at the machine—that is, in the end or at the bottom of the shaft; and if this be so Mr. Crease must be sadly out of his reckoning in supposing that he will obtain it with a 2½-horse engine at surface, for experience has proved that nearly seven-eights of the pressure at the compressing engine is lost before the air reaches the working machine, even if it be only 300 yards distant. No doubt when Mr. Crease gives mechanical details these views may be modified, but we want to know what a machine actually does before we recommend any steps towards its adoption.—*Porthleven, June* 19. A MINE ADVENTURER.

CHONTALES GOLD AND SILVER MINING CO. (LIMITED).

SIR,—In the Journal of June 9 I made a clerical error, when stating the estimated amount of profits of the above company. Instead of 176,400*l.*, it should have been 213,300*l.* per annum. The difference between this amount and Capt. Paul's estimate of 334,900*l.* is caused by the Javali Mine not having as yet been acquired by the company. This mine was considered valuable to the company on account of the water-power attached to it. The company have, however, secured other water-courses for the purposes required. EDWARD COOKE.

Meetings of Mining Companies.

KAPUNDA MINING COMPANY.

The annual general meeting of shareholders was held at the London Tavern, on Monday,—Mr. CHARLES SAMUEL BAGOT in the chair.

Mr. J. D. KENNEDY (the secretary) read the notice convening the meeting.

The report of the directors stated that the ore raised in the year amounted to 2391 tons, of about 20 per cent. average produce, equivalent to 478 tons of pure copper, against 596 tons in 1864, and 622 tons in 1863. The colonial expenditure for raise of ore and make of copper was 43,905*l.*, against 51,671*l.* in 1864, and 51,484*l.* in 1863. The average gross price of copper in England realised was 92*l.* per ton, against 95*l.* in 1864, and 102*l.* in 1863. Mining adventures of all kinds having been notoriously unpropitious during a long period, the directors have to express, not their surprise, but their extreme regret, that their operations at Kapunda have been affected by special as well as by general causes. These will appear, from the above comparisons with the working of preceding years, to have arisen—firstly, from a very deficient yield of ore; secondly, from a large proportionate cost for raising it; and thirdly, from a continuous depression of prices in the home market, unvaried to the present time, except by a transient and nominal excitement on the outbreak of the Spanish and Chilian dispute. On these grounds it will not be surprising that losses should have succeeded to profits. The extent, however, to which the scale has been turned against the company had not thoroughly appeared until the completion of the accounts, which show the very serious balance of loss upon the year's working of 5933*l.* 12s. 9d. At this untoward turn of their affairs, the directors have but to repeat their extreme satisfaction in, and their acknowledgment of, the shareholders' confidence in trusting them unreservedly with the consideration of Messrs. Henderson's proposal for a lease of the Kapunda property, on terms which were originally approved by the board, and must now appear undeniably advantageous. After the special resolution passed in December, and communicated to all the shareholders, the conditional agreement was confirmed, the lease duly executed, and all requisite arrangements for the transfer of the property settled with the colonial manager. The circular, previously issued in November, entered so fully into the terms of the lease (which have been substantially agreed to), that the directors deem it neeessary to repeat only the following principal conditions:—That Messrs. Henderson will enter on their occupancy on Nov. 1, when, by a special clause in the agreement, the company will either close operations by receiving a valuation for all remaining ores of sufficient percentage, or will retain possession for a sufficient period of the various appliances for realising the proceeds in copper. A royalty of 1-18th of the refined copper produced from the property will accrue from Nov. 1, guaranteed by Messrs. Henderson and Co., at a minimum of 4000*l.* per annum, or a clear 5 per cent. on the present paid-up capital, payable half-yearly in London, in equal instalments.

The CHAIRMAN said that he, with his colleagues, regretted they were not in a position to present a more favourable report. The causes which had led to such a result (he referred to the loss which had accrued upon the year's operations) were of a two-fold character—the great falling off in the produce of the mine, and, what was hardly less important, the low price of copper which had prevailed for so long a period. The quality of ore raised and turned into copper during 1865 showed a falling off as compared with the preceding year of 148 tons of pure copper, a most serious diminution; while the price realised (although in 1864 it was thought to be exceedingly low) was during 1865 still lower, as much, indeed, as 15*l.* per ton. But even upon the reduced production of 1865 there would have been a balance in favour of the year's operations had the price of the preceding year been maintained. The only point to which he could refer with satisfaction was the arrangement which had been made with Messrs. Henderson and Co., for the lease of the property. The shareholders were kind enough to leave a great deal of those arrangements with the directors, and in return for such confidence they had not failed to do their best for the welfare of the company. He felt convinced that a more prudent course could not have been pursued; for with a failing mine, as worked under the ordinary system, and with the heavy costs inseparable from mining operations in Australia, it was obvious some arrangement of such a character was the only means of saving a continuous loss. Under this arrangement they would realise an income—at all events, for five years—of 4000*l.* per annum, and if the lessees should be successful in their operations the shareholders might hope to share it. (Hear, hear.) Should the mine come round again in productiveness, the lessees might exercise the option, reserved under the lease, of purchase, taking it at a fair and remunerative price to the shareholders. That, however, was entirely a matter of speculation; but, under the circumstances, the directors had done what was best for the interest of the company in accepting the terms offered. (Hear, hear.) The lessees were to take possession of the property on November 1, part of the stipulation being that the mine should be kept free of water and in a working condition up to that date. The directors had, of course, not failed to send reiterated instructions to the agent in the colony to avoid all outlay that was not absolutely necessary, and to curtail the expenditure in every possible way. From the period when the property was handed over to the lessees the business of the company on this side would be very limited. They would have no copper to sell, because it would be realised by the lessees, who would have to account to the company as the lessors for the royalty; therefore, it would be the duty of the directors to reduce all expenditure in this country to the lowest possible point. As to the remuneration that had kindly been awarded to the directors, that would not in future be looked for, but it would be necessary to make some arrangement with their respected secretary. There would be some little expense in the colony for supervision, but 4000*l.* per annum was the minimum the company would receive, and to pay 5 per cent. upon the paid-up capital would absorb 3500*l.*, so that there would be 500*l.* left to meet the expenditure here and in the colony, which the directors thought would be amply sufficient. He then moved that the report and accounts be received and adopted.——Mr. PEARSE seconded the proposition.

The CHAIRMAN, replying to questions, explained that the working capital stood at 8000*l.*, less the loss that had accrued during the past year. The ore that was raised by the company would be smelted or taken off their hands by the lessees, at a valuation. The lessees took over all stores and certain of the moveable machinery, stocks, &c., at a valuation, the company retaining possession of the smelting works for a sufficient time to enable them to convert into copper such stocks of ore as might be on hand on Nov. 1, the lessees agreeing to take over at a valuation the copper contained in the furnace bottoms—always an item of some importance. As the ore was raised it was converted into copper.

A SHAREHOLDER suggested that some arrangement should be made by which the lessees take possession of the mine at an earlier date than Nov. 1.——The CHAIRMAN said that at first it was hoped the mine would have been handed over to the lessees on July 1, but the lessees represented it was quite impossible for them to make the necessary preparations in the interim, and that, therefore, it was necessary to extend the time. The lessees proposed to adopt a very different process to that hitherto carried on, so that time was required to complete the plant and machinery, most of which was sent out from this country.

A SHAREHOLDER enquired the amount that was drawn against copper last year?——The CHAIRMAN said that the amount drawn was 80*l.* per ton, while the produce of the year was 75*l.* to 80*l.* It was hoped that by the carrying out the instructions of the directors the operations at the mine until Nov. 1 would be conducted without loss to the company—at any rate, that was the hope of the directors, and such had been enjoined upon the manager.

A SHAREHOLDER could not help thinking that if advantage had been taken of the copper market, and endeavours had been made to reduce the expenditure, the loss of the past year would not have been so large.

Mr. PEARSE (a director) referring to the statement made that advantage had not been taken of the fluctuations in the price of copper, stated that, guided by the experience of their secretary, they never deemed it politic to force a sale of their copper. The apparent rise that took place after the Chilian dispute was soon succeeded by an an actual relapse. The directors had taken especial steps in the colony, rather than run any risk, to request the manager to realise as soon as a substantial price could be obtained, but it was subsequently found that the news reached the colony long before it was known here.

Mr. INNES, rebutting the imputation that had been made against the directors with regard to the sales of copper, stated that it was very easy to be wise after the event had taken place. In all transactions of that kind there must be

two parties—a buyer and a seller. It was all very well for the hon. proprietor who had made the charge to state, as a seller, that at the time of the Chilian dispute copper advanced 20*l.* per ton, but he would ask that gentleman if he knew of a single instance where a buyer had come forward and effected a purchase at 10*l.* advance? He (Mr. Innes) could not imagine that gentlemen of such commercial standing as their directors, apart from the very considerable interest they held in the company, were not as anxious as any other shareholder could possibly be to realise the best price. (Hear, hear.) He thought it most unfair to cast any such imputation upon the directors.

Mr. ALEXANDER (a director) stated that there was never any offer made for their copper that did not come before him. He had watched every sale, and he did not hesitate to say that if they had not done as they had their average sales would have been 5*l.* per ton less than had been realised. Their copper was of a peculiar character, and averaged something like 5*l.* per ton above the ordinary market price. It was largely used in Germany to amalgamate with gold. He need hardly say that the higher the value of the copper the more delicate and difficult it was to sell. There were only a few men who bought it, and they principally were Germans.

The motion adopting the report and accounts was then put and carried unanimously. The retiring directors and auditors were re-elected. A vote of thanks to the Chairman and directors terminated the proceedings.

WHEAL TRELAWNY MINING COMPANY.

The quarterly general meeting of shareholders was held at the company's office, St. Helen's-place, Bishopsgate-street, on Thursday, Mr. W. PAGE in the chair.

Mr. W. J. LAVINGTON (the secretary) having read the notice convening the meeting, the minutes of the last were confirmed.

The accounts showed a profit on the three months' working, to the end of March, of 259*l.* 5s. 5d., and a balance of assets over liabilities of 1532*l.* 0s. 1d. The agents' report was read, as follows :—

June 12.—We beg to submit to you the following as our quarterly report, pointing out our mode of working, and the prospects we have in view :—Since the sinking of Smith's engine-shaft has been resumed below the 196, taking into consideration the large quantity of water we have to contend with, the sinking of this shaft is progressing much better than we anticipated, and we hope to get it down to make a 210 fm. level, and intersect the lode before the winter months set in. The 196 is extended north about 41 fms., and will shortly be holed to a winze which has been sunk from the level above, which will thus enable us to lay open moderate tribute ground. We may as well mention in passing, the distance from this point to Chippindale's shaft is about 30 fms., and this piece of ground when driven through will, in our opinion, judging from what we have seen in the levels above, lay open profitable ore ground. The same level is extended south of Smith's engine-shaft about 38 fms., and is now under the winze sinking from the level above, which is now down 9½ fms. We shall at once put the men to rise against the same to effect a speedy communication ; after this object is accomplished we shall have good ventilation, and the end can then be driven more expeditiously than heretofore to get under the valuable ore ground mentioned in our last quarterly report, worth from 25*l.* to 30*l.* per fm. The 182 is driven north of Chippindale's shaft about 50 fms., and for the last 24 fms. the lode has been worth from 10*l.* to 15*l.* per fm. We have three pitches in the back of this level ; the tributes respectively are 8*l.*, 5*l.*, and 5*l.* per ton ; the present end, as we are nearing the boundary, is not so good. A winze is now sinking in the extreme end below the 182, south of Smith's shaft, and will be holed to the 162, coming north from Trelawny's shaft, before our next setting-day ; when this communication is effected it will be the entire length of the mine at this level, after which we shall strip down the lode on tribute, and the hauling of the stuff can be regulated to greater advantage. The rise in the back of the 108, north of Chippindale's shaft, is progressing as fast as the nature of the ground will admit, and when holed to the 78 will open out a large quantity of tribute ground. Seeing the length of ore ground driven through in the 162, both north and south of Trelawny's shaft, induces us to recommend for your consideration the propriety of sinking this shaft to a deeper level, believing the shoot of ore will continue to hold down. In conclusion, we consider the mine was never in a better working position than at the present time, and the chances before us are exceedingly good. We sold this day 55 tons (computed) of silver-lead ore to Messrs. R. Michell and Son, at 25*l.* 4s. 6d. per ton, and we are in the way of dressing, and hope to sample No. 1, 50 tons ; and No. 2, 55 tons, which will conclude our returns for the next quarter.—WILLIAM JOHNS, THOMAS GRENFELL, JOHN PRYOR.

June 20.—Since writing you our report yesterday for the meeting we have holed the 196 to the winze, north of Smith's shaft, and shall now be able to push on the level with greater speed to Chippendale's shaft.—WM. JOHNS, &c.

The CHAIRMAN, in moving the adoption of the accounts and report, said that the committee were sorry that the accounts were not more satisfactory. The lead sold had not realised so much money, owing to the depreciation in the price of that metal. There had also been an increase in the labour cost, owing principally to the excessive wet season. The profit made, however, was over 250*l.*, which would admit of a 5s. dividend being declared ; this matter, however, the committee left entirely to the meeting.

A SHAREHOLDER asked whether there was any likelihood of the mine cost being reduced, or rather whether the present expenditure was exceptional ?——The CHAIRMAN said that the workings were getting deeper, and that a reduction in the cost of working was not anticipated.

Mr. ISAAC said that at the present time they had the most favourable prospect of an increased production of lead ore, although there was but a poor prospect of an increase in the price of that metal.——Mr. HALLET said that he thought it would be more satisfactory to the shareholders to divide the profits made.

A dividend of 5s. per share was declared.

The committee were re-elected, and a vote of thanks to the Chairman terminated the proceedings.

WEST WHEAL VOR MINING COMPANY.

A general meeting of shareholders was held at the offices, Austin-friars, on Tuesday,—Mr. W. GUNDRY in the chair.

The SECRETARY read the notice convening the meeting, and the minutes of the last were approved.

The accounts showed a balance of liabilities over assets of 3*l.* 15s. 9d., crediting all calls as paid.

The agent's report was read, as follows :—

June 18.—The lode in the 42 fm. level, east of Gundry's shaft, is about 3 ft. wide, being composed of spar, mundic, and a little tin, and letting out a large stream of water—a kindly lode. In the 32 fm. level cross-cut, north-west of the elvan, there is still a large stream of water issuing from the end, which I think indicates our nearing the lode. At Gutierrez' shaft, which is now down below surface about 33 fms., the ground is a little improved ; the branch lately met with is still producing rich stones of mundic and yellow copper ore. The engine and pitwork continue to work well, keeping the water at about four strokes per minute.—J. SOUTHEY.

The CHAIRMAN explained that, after mature consideration, the committee had come to the conclusion to recommend the shareholders to agree to a resolution to dispose of the property, not that they had in any way lost confidence in its intrinsic value, for really the important point for the attainment of which the present company commenced operations had not yet been reached ; indeed, up to the present stage of development the progressive indications strengthened the favourable opinion that was entertained when the present shareholders inaugurated the enterprise. The only reason for the recommendation of such a step was to prevent those who did not choose to pay their calls reaping the benefit that might arise from the expenditure of the capital of the call-paying shareholders. If the property should be sold, those of them who choose could become interested in its further development ; and such a step he fully believed would prove to the pecuniary advantage of those who took it. As far as he was concerned, he should avail himself of the opportunity, as he knew would many others who resided in the locality of the mine.

Mr. G. T. TAYLOR quite endorsed the opinion of the Chairman, that those who had borne the heat and burden of the day should alone reap the fruits, and not allow those who had kept themselves in the back ground until some important result had been realised to come forward and share the success achieved by others.

Mr. T. GUNDRY asked if it would be necessary in the carrying out of such an arrangement to stop the mine ?—Mr. MILLS (of Redruth) replied in the negative, stating that at the end of June cost the purchaser would come in and take the mine in a working condition ; from that time the liability of the present shareholders would cease, and that of the purchasers commence.

A SHAREHOLDER asked what premium the present shareholders gave for the property ?—Mr. MILLS said the present shareholders did not pay one penny premium, having simply reimbursed him the amount he had previously expended in its development—600*l.*, as shown in the cost-book of the company ; and when the present shareholders came in he reserved to himself 500 shares, upon which he had continued to pay the calls. (Hear, hear.) That was the best evidence he could adduce as to his opinion of the mine, and he was much indisposed to stop the mine at its present important stage of development.

The motion adopting the report and passing the accounts was put, and carried.

A resolution was passed, to the effect that inasmuch as a large amount of calls was in arrear, and not likely to be collected, the committee be authorised to dispose of the sett and materials, either by public auction or private treaty ; the purchaser to be given possession on June 30, when the liabilities of the present shareholders would cease.

The committee were re-elected for the purpose of carrying out the foregoing resolution.

LEAWOOD MINING COMPANY.

A general meeting of shareholders was held at the offices, Austin-friars, on Monday—Mr. WESCOMB in the chair.

Mr. J. H. MURCHISON (the secretary) read the notice convening the meeting, and the minutes of the last were approved.

The accounts showed a debit balance of 1003*l.*, crediting all calls as paid. The report of the agents was read, as follows ;—

June 16.—The engine-shaft has been sunk to the 40, plat cut, and the cross-cut commenced driving towards the lead lode, by six men ; good progress is being made in driving. The 30 has been driven south 10 fathoms ; the lode is 4 feet wide, composed of quartz, white iron, flookan, and in places spots of lead—a very promising lode. In driving the 19 north, on the western lead lode, a copper lode has been intersected, 3 feet wide, of a kindly appearance, and we are of opinion it will be found productive at a greater depth. We consider the prospects are better now than at any former time, as the lode in the 30 south is more defined than it was in the 19. The stratum in the shaft is much easier for sinking, and more congenial for mineral than it was in the 30 ; and the ground in the 40 cross-cut is of a better description for lead than any before met with in the mine. There remain about 25 fathoms more to drive to cut the lode in the 40 ; this can be done in three months, at a total cost of 600*l.* ; and taking into consideration these important changes in the lode and stratum, we consider the chances are much in favour of finding the lode productive in the 40, The engine and pitwork are in good order, and keeping the water by working five strokes per minute.—J. NICHOLLS, J. DAW.

The CHAIRMAN proposed that the report be received and entered on the minutes, and that the accounts be passed and allowed.

Capt. JOHN DAWE expressed himself very favourably with regard to the prospects of the mine, which, he stated, were now better than at any former period. The lode in the 30 south was as fine-looking in every respect as it possibly could without a course of ore. In the last few days it had produced small stones of lead of an unusually promising character. He expected in about two months this lode would be cut in the 40, and the ground in the cross-cut was of a better character than any ever before met with in the mine. He considered the chances of finding a good lode at that level were unexceptionably good.

Mr. MURCHISON remarked that the backs of the lodes in the mine were considered to be as fine as could be found in any mine, and it was the confident opinion of some of the best mining authorities—such as Capt. James Richards, of Devon Great Consols, and Mr. Josiah Hitchins—that a very large quantity of lead would be found under the abundance of splendid gossan. By the specimens of flookan produced by Capt. Dawe, it would be seen that the indications were not only of a most promising character, but that those specimens were full of grains of lead. The mine, he might mention, was in the immediate neighbourhood of Wheal Betsey—a lead mine which had made immense returns some years since, and was now being re-worked. He certainly should be very much disappointed if the mine did not turn out extremely well.

The report was received and ordered to be entered on the minutes, and the accounts were passed and allowed.

A call of 1*l.* per share was made. A vote of thanks to the Chairman was passed, which terminated the proceedings.

GREAT WHEAL VOR UNITED MINING COMPANY.

The quarterly general meeting of shareholders was held at the offices, Gresham House, on Wednesday,

Mr. GEORGE NOAKES, F.G.S. (managing director), in the chair.

Mr. TRURAN read the notice convening the meeting, and the minutes of the last were approved.

The audited accounts—which appeared in last week's Journal—were taken as read.

The CHAIRMAN said his first business was to read the report of the committee, which was as follows :—

The gloom, which has spread such universal disorganisation throughout the commercial circles of the country has materially affected the market value of the company's property. The depression in the price of tin, which in December last was thought to have reached its lowest point, has continued its downward course, with little prospect at present of amelioration. The difference between the former standard of 80*l.* per ton and that of the present price for tin ores leaves a deficiency of more than 2000*l.* upon the profits of last month's returns. The shareholders may well, therefore, imagine the deep regret the committee feel to be deprived of that large measure of success which would otherwise have been now so signally achieved. The committee, at the same time, feel it their duty to state that the extreme depression at which the shares have been quoted did not, in their estimation, arise so much from actual as from those fictitious dealings which have, unhappily, caused so many disastrious consequences. The great body of shareholders, firm in their conviction of the stability of the mine, have not been moved to part with any portion of their interest, and the consequence has been that the depreciators for "time" have found it difficult to obtain shares to meet their engagements. It is by conviction in the merits of the mine, and the determination not to allow confidence to be shaken by idle rumours, that the shareholders more firmly uphold the value of their property. The price of tin, no doubt, is lower now than it has been for the last 30 years, but reaction will come, and, in all probability, former values may be again recovered ; how essential, therefore, to maintain the Reserves and the permanency of the mine. To this end the policy of the committee will be directed, so that whenever such an amelioration shall arise the shareholders may reap the full benefit of it. The purchase and erection of the engine at Woolf's shaft, and the extension of stamping power at the floors, have largely increased the costs of the quarter ; these important works, however, are fast drawing to completion, when this excess of cost will be relieved. With regard to the position of the mine, the committee have the satisfaction to state that the prospects were never better, nor more assuring of permanency. The reserves are large, and increasing. The run of ore ground extending west, and holding down in depth, gives every promise of a lasting, productive mine. There is, in fact, nothing now to be desired but former prices for tin ores to render the success of development immensely remunerative. The committee feel that they cannot better describe the present favourable position of the mine than to state that 70 tons of tin are raised monthly, without forcing the mine, and the reserves, notwithstanding, are increasing. It is fervently to be hoped that this condition of the mine may be maintained when those brighter times may arrive which shall enhance the value of its produce, and requite the shareholders with even larger dividends than have been hitherto received.

The CHAIRMAN then read the report of the agents, as follows :—

June 18.—Metal engine-shaft is sunk to the 204, and a cross-cut commenced driving towards the lode, which we expect to reach within the present quarter. The lode in the 194 west is 1 ft. wide, worth 10*l.* per fm. By the time you receive this the 194 east will be holed to the winze, when the end will be continued east, on a lode worth 30*l.* per fm. The No. 3 winze, sinking below the 184, is 11 fms. east from the 194 end ; sunk about 4 fms. below the level, worth 40*l.* per fm. ; we, therefore, having a rich lode in the end of No. 2 winze for the full depth, and looking forward to rich ground as we continue the 194 east. The 184 east has been driven about 7 fathoms east from the No. 3 winze ; the lode in this drivage averages 45*l.* per fm. ; at present worth 35*l.* per fathom. The 184 west has been driven west about 40 fms. from shaft, at an average value of 80*l.* per fm. ; the lode in the present end is 3 ft. wide, worth 70*l.* per fm. The No. 3 winze, sinking below this level, is sunk about 4 fms. ; the average value has been 120*l.* per fathom ; now worth 120*l.* per fm. ; this is the average value of the three winzes sunk below the 184. This winze being some fathoms in advance of the 194 west, we confidently expect an improvement in this end (194 west). The 174 east is in a large lode, worth 16*l.* per fm. The 174 has been communicated with Ivey's shaft a distance of 76 fms. ; the lode in this driving has averaged 44*l.* per fm. Winzes have been sunk to the 184, at an average value of 54*l.* per fm. Winzes have also been sunk from the 162 to the 174, at an average value of 90*l.* per fm., and we are glad to say that about three-quarters of this ground is held in reserve, together with a great portion of the ground opened out east from Metal and west from Ivey's, and we do not require additional stoping to keep up our returns. Ivey's shaft has been sunk 4 fms. below the 174 ; in this sinking the lode and branches have been about 18 ft. wide ; the principal leader, which is on the south wall, is about 2½ ft. wide, producing rich stones of tin ; the branches, which contain good tin work, are droppers from the north, and will ultimately fall in with the lode, to present appearances, in about 9 or 12 ft. more sinking ; the average value of the 4 fms. sunk has been 90*l.* per fm., but we expect when the branches fall into the lode, and the lode becomes well defined, it will be very rich ; at present the shaft altogether is worth about 100*l.* per fm. The lode in the 174 west is 4 ft. wide, worth 50*l.* per fathom ; we confidently look forward to having a rich lode in this end to the intersection of the slide, a distance of about 45 fms., being a corresponding result as proved in the levels above. The lode in the rise in the back of this level, about 3 fms. east from the end, is large, worth 15*l.* per fm. ; having a rich lode in the level above we look forward to a speedy improvement. The 162 has been driven about 27 fathoms west from shaft ; this level has averaged in value 90*l.* per fm. ; the slide is now in the end, which has disordered the lode. Notwithstanding, the branches and lode together are worth 20*l.* per fm ; we do not expect a regularly defined lode in this end until we are clear of the slide, when, if it proves to the south of the slide as at the 147 and 157 above, we shall have about 50 fms. of rich tin ground west from the present end. The lode in the 157 west is 3 ft. wide, well defined, a kindly lode, worth 15*l.* per fathom. The stopes throughout the mine are producing the usual average quantity of tin. We are hastening on the stoping down of the bottom of the 174 to bring back Metal water to Ivey's shaft, and are glad to say the lode is very good, worth full 40*l.* per fm. We shall lose no time in fixing rods and bobs in the 147. We are glad to say the water is gradually sinking in Edwards's shaft, and we shall soon resume the sinking and prove the direction of the lode in the 100, west from cross-course. Woolf's engine will be ready to work next week, when we shall immediately disengage flat-rods from the stamps, and fix new stamps axles. All the machinery throughout the mine is in good working order. In conclusion, we are glad to say within the last quarter we have greatly added to our reserves, and the low price for tin has only lessened our usual quarterly balance.—THOMAS JULIAN, S. HARRIS, JOHN JAMES.

The CHAIRMAN said he had received a letter from one of his colleagues, Mr. Husband (who resided near the mine), the tenor of which was of a character entirely confirmatory of the favourable report he (the Chairman) had just read. The letter stated that—

"You are fully informed as to the proceedings at Great Wheal Vor; I may, however, say that I called there twice last week. I did not see Captain Julian, but had a talk with Capt. Harris. He says everything is looking well, and that the last parcel of tin was the best they ever sold—no falling off in quantity or quality. Ivey's shaft is now valued somewhat lower than it has been, but the lode is good, and well defined. The bottom of the mine looks well. I am sure the shareholders ought to be exceedingly well satisfied with their property, considering the serious depreciation in metal ; there is, however, a prevailing opinion that we shall have an improvement in that quarter soon. Tin has, it is generally thought, reached the lowest. I hope so. I have also seen Captain Julian, and he says the mine has never looked better since he has been there. They are getting on well with the surface work."

The CHAIRMAN then said that the mine was in all respects everything that the most sanguine could expect or desire, but as proprietors in a tin-producing property, they could not be unmindful of the fact that, in one respect, they had fallen upon unfortunate times with regard to the remunerative success of the development of their mine ; but with this great misfortune it was most consolatory to know that the mine was opening out in a manner so eminently satisfactory. (Hear, hear.) As *bona fide* shareholders they were, of course, very sorry, in one sense, to see their property, in a market point of view, at a value so much lower than it had hitherto been, and possibly it was to some extent justified upon the ground that the price of tin had so seriously declined. It was true that in March, 1866, they realised for their tin 56*l.* per ton, and in June only 48*l.* 15s.—a difference of 7*l.* 5s. per ton, equal to a loss during the past three months of 776*l.* ; that there had been an extra cost during that period amounting to between 500*l.* and 600*l.* (as seen in the accounts which had been forwarded to the shareholders), the extra cost being in connection with the capstan rope, stamps' axle and engine ; and that this item, added to the deficiency arising from the decline in the price of tin, had made a difference during the quarter of something like 1200*l.* or 1300*l.* But with respect to the present market price of Great Wheal Vor shares, as compared with that at which they stood some two years since, and after making every allowance for the altered state of the metal market, there were some very curious anomalies. Before, however, proceeding further he would mention, by way of parenthesis, that this was the first time he, as Chairman, had alluded to the market value of the shares, for really it was a thing in which they had but little interest, except that all persons were glad to see their property commanding a good market value. Although his mind was absorbed in the property itself and in its development, yet he wished to draw attention to this circumstance, that in 1864, when a dividend of 10s. per share was paid in March, and 12s. in June, the shares advanced in market value to 40*l.* each, although they were returning then only 43 tons of tin per month ; but now, when they were returning 70 tons per month, the market price of the shares was about 18*l.* to 19*l.* To his mind it was a most anomalous fact that with 43 tons of tin per month the shares were realising 40*l.* per share, but with 70 tons per month they were about 18*l.* As he had already said, it was perfectly true the value of tin had fallen very much, to such an extent, indeed, that the 70 tons now realised but little more than 43 tons did at that time ; but it struck him they were now in this position—in 1864, when the public began to be alive to the prospects of the mine, the shares suddenly rose to 40*l.*, tin being about 65*l.* per ton. There was no idea at that time that tin would have declined in value, but now it had declined to a price lower than it had been for 30 years. Therefore, the prospect was that if any further change took place it would be in the ascendant, and they had to look at the condition of the mine—as indicated by the report he had just submitted—that they were now positively selling 70 tons of tin per month, which they had been doing for a considerable period, not only without forcing the mine, but gradually increasing the reserves. Although it would probably be indiscreet in him to state the whole length of his reflections as to the duration of those reserves, but if all operations were to close to-day, and they had the reserves only to work upon, they would be able to continue to return 70 tons per month for a considerable period. (Hear, hear.) That was a statement, probably a larger statement, than prudence under some circumstances would allow him to make, but he made it in all frankness, to show the actual condition of the mine, while the prospects were everything the most sanguine could possibly desire. (Hear, hear.) It really made no practical difference whatever to the committee if the whole of the present shareholders thought fit to part with their property, but at the same time the committee had a conscientious feeling in the matter (he had in particular) that shareholders should not be frightened out of their property at the present price of the shares ; but, on the other hand, he would reiterate that which they should never lose sight of—that in all mining operations there were vicissitudes, and that no one could tell how long the present favourable prospects would continue, whether they would become better or worse, although he hoped and believed, from the present indications, that the prospects would much improve. (Hear, hear.)

A SHAREHOLDER enquired if the present reserves were equal to keeping up the present returns for anything like 12 months ?——The CHAIRMAN said if he were to give the result of his own reflections he should certainly reply to that question in the affirmative. (Hear, hear.) He need not longer, he thought, descant upon the merits of their enterprise, and all he had to say was that he hoped he had not said too much, for he had ever endeavoured to avoid exaggeration, his wish being not to deceive himself nor those who trusted to his opinion.

Mr. PHILLIPS asked the length of unwrought ground there was in the sett ?

The CHAIRMAN said that, irrespective of the ground already laid opened, and the large and increasing reserves, there were something like 300 fms. of whole ground—virgin ground. A shaft was being sunk in the very centre of two cross-courses, and if it should come upon another course of ore, which there was every reason to believe would be the case, the property would be doubly increased in value. He repeated that he hoped he had said nothing either exaggerated or offensive to anyone. (Hear, hear.) They all knew, from his long connection with the mine, his deep interest in its success, and how anxious he was to preserve its permanency. They all knew that the permanency of no mine could be be maintained but by good reserves ; he trusted upon that point Great Wheal Vor was a permanent mine. (Hear, hear.) It was, in fact, not out of the course of probability that it might be a good mine for 20, 30, 40, or even 50 years ; that, however, was in the womb of the future. He now came to, perhaps, the most important part of the business of the day—the financial result of the operations at the mine from the last meeting up to the present time. The financial position of the company stood this day as follows :—

On the publication of the audited account to April 30 last there was a balance in hand of			£3,360 9 7
Since which date there has been received—			
Tin sale in May			3,644 12 2
Tin sale in June			3,365 2 2
Old materials sold			75 9 2
Sundries, &c., sold at the mines			13 5 11
And paid— Total			£10,458 19 0
April cost, including bills	£2,248 4 1		
Sundries, postage, &c.	3 6 11	=	2,251 11 0
Balance			£8,207 8 0
The actual account stands this day as follows—			
ASSETS—Balance as above			£8,207 8 0
LIABILITIES—May cost, including bills	£2,123 0 4		
Sundry accounts, salaries, &c.	190 16 0	=	2,313 16 4
Balance in favour this day			£5,893 11 8

The CHAIRMAN said that the committee proposed to recommend out of that balance a dividend of 10s. per share—(hear, hear)—which they hoped, under the circumstances, would be satisfactory. He further stated that at the last meeting a dividend of 13s. 6d. per share was declared, which left an undivided balance of 2927*l.* 14s. 6d. to be carried forward ; the committee now recommended a dividend of 10s., which would leave an undivided balance of 2939*l.* 11s. 8d., increasing the amount to be carried forward some few pounds.

Mr. DUGDALE suggested that the report of the committee, together with the amount of dividend recommended, should be forwarded to the shareholders prior to the meeting.——The CHAIRMAN said that it was not possible to adopt that suggestion, because the tin sale, the result of which regulated the amount of dividend to be declared, took place only a few days before the meeting—for instance, the accounts now under consideration embraced the sale of the tin raised in May but sold in June, and the costs for May could not be furnished until the second week in June.

A SHAREHOLDER asked the Chairman if he could in any way account for tin being at so low a price ?——Mr. FELDWICK mentioned that a friend connected with the tin trade had informed him that it arose from galvanised iron being very much used as a substitute for tin.——The CHAIRMAN said there were other causes which had reduced the consumption. When the American civil war commenced (and America was one of England's best customers for tin) the price of that metal was very high, which stimulated large imports from the Indian Archipelago, and thus largely increased the stocks. Although, perhaps, those stocks were still large there were indications, judging from the statistics of the last three month, that the shipments from the Indian Archipelago were becoming less. It might be, too, that the low price of tin would shut up some of the poorer mines in Cornwall, and so lessen the supplies. In what manner the war would affect the price of tin it was at present impossible to say.

A SHAREHOLDER asked if it were not possible to sell more tin, and thus make up the difference in its value by an increase in quantity ?——The CHAIRMAN was glad that question had been asked, because it gave him an opportunity of expressing his opinion upon that point. He had already stated that his anxiety was to preserve the permanency of the mine, and if tin should go much lower he should say—"Gentlemen, won't it be better for awhile to reduce the dividends, knowing that the price cannot go much lower, and receive only 5s. per share. For probably by waiting a proper period the tin that will now only realise 5s. per share may bring 10s., or even 15s. per share ?" His view was that if tin went lower they should raise only sufficient to meet costs ; if it advanced they could increase the returns even beyond 70 tons per month. (Hear, hear.)

Mr. PHILLIPS asked if the shareholders might hope to see the present dividend maintained if there were no further decline in the price of tin ?——The CHAIRMAN thought he might venture to state that if tin remained at 50*l.* per ton, Great Wheal Vor would continue to pay 10s. dividends quarterly. (Hear, hear.)

A SHAREHOLDER asked if it were possible to suspend for a period the present heavy expenditure ?——The CHAIRMAN said that in all mining leases there were certain clauses that compelled the performance of a certain amount of work ; but the costs were being reduced as much as possible, not, however, at the expense of efficiency. They all thought the property was of that character that the costs should not be reduced detrimentally to its efficient working.

The motion receiving and adopting the report and accounts was then put and carried unanimously, as was the motion adopting the recommendation of the committee that a dividend of 10s. per share be declared.

Upon the proposition of Major SCHALCH, seconded by Mr. DUGDALE, Mr. G. Noakes, F.G.S., was unanimously re-appointed the managing director and Chairman of the company, with the thanks of the shareholders for his continued efficient conduct of the company's affairs.

The CHAIRMAN, on rising, was received with applause. He thanked the shareholders for this renewed mark of their confidence ; but, at the same time, he stated he should be very sorry if such a vote were carried as a matter of course. He hoped, however, it was with the full concurrence and unanimous desire of the shareholders that he should continue to occupy the position he had held for so long a time. (Cheers.) He had tried, and would do so as long as he retained that position, so to develope the property as to make the results most advantageous to his co-proprietors, and it gave him unbounded satisfaction to see that the mine at the present moment, amid such unparalleled depression, was not only maintaining its own, but was daily increasing in mineral value, and he hoped the time was not far distant when they would practically realise the old familiar Cornish toast—"A better price for tin." (Cheers.) He trusted that he should be spared to meet the shareholders in September, and to be in a position to show that the mine was not only continuing as at present, but that some improvements, which appeared to be promising, had been realised. (Hear.)

The committee of management were re-elected, and Mr. W. Moates (public accountant) was re-appointed auditor.

Mr. GEORGE RICE had much pleasure in moving that the best thanks of the shareholders be accorded to Mr. G. Noakes for his able presidency upon the present occasion, stating that the shareholders could not but have the most perfect confidence in the judgment of their worthy Chairman, if for no other reason than the cautious and careful statements he had made in bygone days as to the returns of ore Great Wheal Vor would sooner or later make had been most accurately borne out by actual results. Their Chairman had never promised enormous dividends, as that must be regulated by the price of tin, over which he could have no possible control ; but the Chairman had promised that Great Wheal Vor would return 70 tons of tin per month, which promise had been and still was being realised. (Hear, hear.) The poet says—*Non progedi est regradi*, which was substantially true in their case, for, although they were not progressing financially, they were commercially ; therefore, their hope—their one hope—was that the time was not far distant when they would command for their produce an increased commercial value. (Hear, hear.)

The motion having been duly seconded was put and carried unanimously.

The Chairman having appropriately acknowledged the vote, the proceedings terminated.

EL-CHICO SILVER MINING AND REDUCTION COMPANY.

The third annual meeting of shareholders will be held on Tuesday.

The report of the directors calls the attention of the shareholders to the improved position and prospects of their properties in Mexico. The work of continuing the deep adit into the mine of El Torno is being prosecuted with vigour, and instructions have been sent to the company's agents to leave no means untried to gain access to the rich deposits of ore in this mine, independently of the great operation on which they are now engaged. The first parcel of ore raised in the western extremity of the mine has been reduced at the hacienda, and the silver extracted sold to the Mexican Mint. As the present mining operations are being pushed forward on the course of the El Torno vein, which, in the opinion of Mr. J. R. Rule, will be intersected by several others before the end of the adit is driven under the old workings, it is expected that a sufficient quantity of ore may be raised during the progress of the present works to pa

for a considerable portion, if not the whole, of the current mining expenses. The supply of ore to the hacienda of San Pascual has exceeded that of last year by about 30 per cent. Up to the present time these works have depended almost entirely on a single mine for employment, but another valuable mine in the immediate neighbourhood having now come into ore, and the company's own mine being likely to furnish a further supply, it is fully expected that the working of this establishment will become more profitable. In consequence of the detention of the company's manager on law business in the city of Mexico, the directors were unable to procure the necessary accounts and reports in time to hold a general meeting in March, as originally agreed on. They have now provided against the recurrence of any similar disappointment by appointing Mr. John Petherick, late of the Real del Monte Mining Company, to the post of superintendent of the mine and hacienda, under Mr. J. R. Rule. Supplied, as they will now be, with regular reports at short intervals of the condition of the company's properties in Mexico, it will be in the power of the directors to communicate more fully and more frequently with the shareholders than they have hitherto been able to do.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

No improvement has been noticed in the Mining Share Market this week, and the business done appears to have been of a very limited character; nor, indeed, can any important change take place before the Metal Market arrives at a more satisfactory position. Hopes are entertained that tin will advance, especially as more firmness is manifest. The copper standard this week is not so good as last sale, still there is great hope that a favourable change will take place.—WHEAL SETONS have changed hands at lower rates, although the mine is represented to be looking remarkably well.—WEST SETONS continue very inactive.—CLIFFORDS have receded, and more freely offered.—WEST CHIVERTONS have fluctuated, but several transactions reported at fair market prices.—CHIVERTON MOORS have been less active this week, still they show a fair tendency.—CHIVERTONS have been enquired for at fair market quotations, and sellers seek better figures.—CAMBORNES VEANS have advanced, and show more firmness.—EAST BASSETS have receded, and more freely offered.—WHEAL BASSETS are rather quiet.

TINCROFTS are also quiet at minimum quotations.—GREAT LAXEYS have been largely dealt in at fair market prices.—GREAT NORTH LAXEY and SOUTH DARREN have been rather quiet this week.—FRANK MILLS have changed hands at minimum rates.—CENTRAL MINERAS have changed hands at lower rates.—WHEAL GRENVILLES have been more than ordinarily quiet; a few shares changed hands at a nominal price.—EAST GRENVILLES have been freely dealt in at quoted prices.—NORTH TRESKERBYS maintain their price, but are sought for at lower figures.—GREAT BUSY, HALLENBEAGLE, and GREAT NORTH DOWNS are unnoticed at present.—GREAT WHEAL VORS have fluctuated during the week, but left off slightly firmer.—EAST WHEAL LOVELLS have receded, although the mine is reported to be looking well.—NEW WHEAL LOVELLS are quiet, but sought for at buyers' prices.—ST. IVES CONSOLS have also been enquired for at minimum quotations.—PROVIDENCE shares are very quiet at quoted figures.—EAST CARADONS have advanced and in good request, consequent on the improved prospects of the mine.—MARKE VALLEYS are also better, and in fair request.—WEST CARADONS are more than ordinarily quiet.—TRELAWNEYS continue dull.—DRAKE WALLS have been sought for at buyers' prices.—PRINCE OF WALES shares have been less active this week, but are apparently firm at quoted prices.—CREBORS in request at minimum rates.

EAST CARADON.—They have intersected the caunter lode at the 100, and although disordered at the point of intersection, is likely to prove, on development, as valuable as the levels above. The 90 east, on the same lode, has very much improved, and, from present appearances, there is every probability of further discoveries being near at hand. Upon the whole, the mine has much improved.

PEDN-AN-DREA is reported to have improved in several important points, and from changes which have recently taken place in others, further discoveries are fully expected.

WHEAL SPARNON.—The prospects of this mine are more than ordinarily encouraging. The lode in the engine-shaft is very large, and of a most promising character, and, from present appearances, there is little or no doubt of a good course of ore being shortly met with. There are several other points which are looking highly satisfactory.

WHEAL SETON.—The prospects of this mine continue to present the most splendid results, and, notwithstanding the untoward event which caused the temporary suspension of the dividend of 5*l.* per share, as noticed last week, the course of ore now in the shaft and bottom level is represented as one of extraordinary character. The lode in the shaft, sinking below the 170, is yielding full 24 tons per fathom, and the 170 fm. levels, east and west, are worth together 30 tons per fathom, and the winzes are equally productive, leaving no doubt that the next level will open a valuable and permanent run of ore ground. The several points of operation are represented to be worth 120 tons per fathom.

SPEARN MOOR.—The prospects here continue much about the same as the previous quarter, and but for the depressed price of tin (which is now 20*l.* per ton less than the average of the last 15 years) would have made a fair profit during the last quarter. Still a profit of about 75*l.* is shown over the working expenses, and although the coal and merchants' bills for three months are comparatively light, a loss of about 224*l.* appears. The sales of tin for the present quarter will be about the same as the last, and before the next meeting the highly promising and productive lode between the flat-rod and the diagonal shafts is expected to be intersected, and communication made with both shafts, when a long run of tin ground will in all probability be laid open.

BOTALLACK is represented as looking remarably well, the recent discoveries fully maintaining their value, with great results in prospective. The new lode has been proved some distance, and for 14 fms. in length is worth full 100*l.* per fathom, the ore being of a rich quality.

CENTRAL MINERA.—No change has taken place in the 30; the lode still maintains its value and character, and is yielding considerably more lead than will pay the costs.

JAMES LANE.

From Mr. EDWARD COOKE:—There has been rather more business doing, with a good demand for several mines, and it appears to be the time for those who are disposed to invest in good mines while they are low in price to embrace the present opportunity of doing so. I am inclined to an opinion that if the following mines were bought into now they would yield the investors a large profit in a few months. I would select—Wheal Seton, Tincroft, East Caradon, Devon Consols, West Chiverton, Tresavean, Caldback Fells, North Chiverton, East Lovell, Marke Valley, Chiverton Moor, Prince of Wales, Frank Mills, and South Darren. The market for CHONTALES has been very firm, with an absence of sellers. To sell these shares now, when the time is drawing near for large remittances of gold to be received, would be almost suicidal. Those who can afford it should not only hold their shares, but buy as many as they can while the price, as compared with their real value, is ridiculously low. The Chontales district is unquestionably one of the finest gold-bearing districts in the world, and the MINERAL RIGHTS COMPANY will, no doubt, succeed in securing very valuable gold mines in the same district through their director who has proceeded there, with a thorough practical man to assist him in the selection. It is stated, upon the very best authority, that there is ample room for several large companies to operate profitably in this rich district; therefore it may reasonably be expected that the Mineral Rights Company will be a very successful one, and the shares are well worth buying. On Monday next 15 new coke ovens, making 55 in all, will be set to work at the HOLLYBUSH COLLIERY AND COKE WORKS. I have very much pleasure in noticing this really valuable property, and anyone wanting a steady and profitable investment to pay them from 10 to 20 per cent. without risk, will do well to buy into this company, if the shares are to be had at anything like par to ¼ premium.

From Mr. BAKER LELEAN:—Everything seems to favour the operations of investors. No sooner has one impediment in the way of an improvement in prices been removed than another has been interposed, thus lengthening the opportunity of those who are discreet enough to "take Time by the forelock," and make their selections in the market before there is an active demand for securities of all descriptions, as there, no doubt, will be as soon as the result of the ministerial crisis becomes known, and the functions of the executive are resumed under the conditions that are generally anticipated. This is no time for either changing the Government or dissolving the Parliament; and a tender of resignation having been made by Lord Russell and his colleagues, to satisfy at once their honour and the constitutional usage, there can be little doubt that they will, looking at the exigencies of our position, and the mischief likely to ensue from either of the steps alluded to, at once consent to hold office, endowed with additional strength, as they will be, to open the next session of Parliament with such a Reform Bill as shall at once satisfy the demands of all enlightened reformers, and suggest to the obstructives the folly of still further protracting the settlement of this vexed question. At present a general flatness prevails; as, indeed, must necessarily be the case upon the opening of such a European conflict as that which now threatens us. The war once fairly entered upon, the current of events can scarcely be otherwise than in our favour. In the meantime money, as I have suggested, may be invested under more than ordinarily favourable circumstances—provided always that sound judgment be exercised, or reliable advice be acted upon.

The mines I would most strongly recommend at the present time are Great Vor, Wheal Chiverton, Chiverton Moor, East Caradon, Central Snailbeach, West Chiverton, Great South Chiverton, Great Laxey, Great North Laxey, Wheal Crebor, Herodsfoot, and Wheal Seton. The reports from all these mines are satisfactory, and from some of them pre-eminently so. At GREAT LAXEY, Dumbell's ground is affording indications of increased value, and the operations for working this as a separate mine proceed satisfactorily, as they do also at Glenroy. At GREAT SOUTH CHIVERTON they have cross-cut another lode of a promising character, north of the main lode, containing some good lead, and having a leader of rich copper ore on the north wall. Other points in the mine look very promising, and the 20 west yields lead to save. This will certainly become a great mine, and help to extend the reputation of the Chiverton district. At CHIVERTON MOOR they have cut the lode in the 50 cross-cut, flat-rod shaft; it is 18 in. wide, worth 2 cwts. of lead per fm. It is promising, but we must pause before speaking further of it. The reports laid before the adventurers in GREAT WHEAL VOR were very satisfactory, all points in the mine looking well, and the reserves constantly increasing. At ROSEWARNE CONSOLS the mine is opening better and better west of the sump, and they expect some further discoveries soon. At CENTRAL SNAILBEACH, Capt. Kitto feels certain of cutting the lode six weeks or two months earlier than he expected; and everything combines to sustain the most sanguine expectations that have been formed of the mine. If there should be anyone who reads my communications who has not yet possessed himself of some shares in this more than usually promising of mines, my advice is that he should do so while they are to be had at a cheap price. At soon as they cut the lode the price will run up.

HOLLOWAY'S PILLS—WEAKENING WEATHER.—The sultry summer days strain the nerves of the feeble and decrepit, and this state eventuates in diseases unless some restorative, such as those purifying pills, be found to correct the disordering tendency. Holloway's medicine gives ease to the nervous system, which is the source of all vital movements, and presides over every action which maintains the growth and well-being of the body. No one can over estimate the necessity of keeping the nerves well strung, and the ease with which these pills accomplish that end. They are the most unfailing antidotes to indigestion, irregular circulation, palpitation, sick headache, and costiveness that were ever invented, and, in consequence, have attained the largest sale and highest reputation.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

The OLD CLOGAU MINE is reported to have found another good run of gold.

CASTELL CARN DOCHAN gold produce for May month was 49 ozs. 14 dwts., from 197 tons, making a total since the commencement of 1307 ozs. 18 dwts., from 2369 tons of lode stuff.

SOUTH TREVENNA.—In consequence of the great improvement seen in sinking on the copper lode in the south part of the sett, as well as the No. 2 tin lode, a great stir has been caused in the district. It is the opinion of mining men who have seen these lodes that it will turn out in a short time one of the best mines in the county. The mine is proved to be beyond a speculatation, as large and regular returns are certain. The shareholders will shortly be remunerated for their small outlay, and they should not part with their interest except at a good premium.

CHIVERTON AND SOUTH MOUNT UNITED MINES.—We are advised that the above valuable property is about to be vigorously worked by a very influential and spirited party, under the most favourable auspices, with every probability of success, an opinion supported by the most practical mine agents of the highest reputation in the county.

It is currently reported that a piece of ground on the east of the Ellen United Mines, St. Agnes, Cornwall, has been secured, and will be shortly introduced as the EAST WHEAL ELLEN. A mine was formerly worked under that title, but we understand the property referred to is not the same. It is asserted that careful examination has placed beyond all doubt the fact that the very rich lode lately so fortunately cut in the Ellen United, and the lode in the same sett known as the Navvy pit, run through the entire East Ellen sett. The copper ore from the new lode in the Ellen United averages 25 per cent. for copper, and from the Navvy pit 60,000*l.* worth of copper ore was quarried in a very brief period. At a time when the mining interest is so very much depressed by a variety of untoward circumstances as at present, this undertaking will be a great benefit. There can be but little doubt that, even as monetary matters are, the new adventure will be readily taken up, the discoveries at the Ellen United affording a guarantee, and placing the affair beyond a speculative concern, as there will be nothing to do but open the mines and make returns forthwith, as at the Ellen United, from which mines we have most favourable accounts, and at which upwards of 100 tributers will be set to work as soon as the water is out, breaking blende, copper, and tin ores, all of these minerals being found in the lodes therein.

GRAMBLER AND ST. AUBYN.—These mines continue to improve, and have just sampled 38 tons of copper ore, which gives an assay of 10½ per cent., which at last year's standard would have given a good profit.

DON PEDRO NORTH DEL REY.—The produce for April was 7526 oits. of gold, or 868 ozs., being the largest produce since the commencement of operations. The mine goes on improving, and the profit for April month is about 1500*l.*, or at the rate of 18,000*l.* per annum. Too much praise cannot be given to the superintendent, Capt. Thomas Treloar, in selecting such valuable property, and who was the means of making the St. John del Rey Mine one of the best in the world. The shareholders are all indebted to him for his valuable services rendered to the company, which is making a profit of about 100,000*l.* per annum.

FOREIGN MINES.

VALLANZASCA GOLD.—This company have sold their last return of gold, which has produced 1220*l.* 18s. 6d. nett.

VAL TOPPA GOLD.—This company have received 297½ ozs. of gold, and sold it for 1052*l.* 1s. 9d. nett.

VAL ANTIGORIA GOLD.—This company have received 25½ ozs. of gold, which has realised 102*l.* 18s. 6d., an average of 79s. 2d. per oz.

ANGLO-BRAZILIAN GOLD.—Capt. T. Treloar reports—The gold return for April amounts to 1357 oits. (157 ozs. troy).

DON PEDRO NORTH DEL REY.—Capt. T. Treloar reports—The gold return for April amounts to 7524 oits. (equal to 868 ozs. troy), and it has been derived as follows:—Maquine, 6231 oits.; Morro de Sta. Anna, 1293 oits. Our underground operations have proceeded regularly, and the gold return (7524 oits.) will, I hope, be satisfactory. Timber, I am pleased to say, is appearing in great quantities. Our surface works have been retarded by wet weather. The roads to the provision districts have been almost impassable, so provisions have ruled high. The roads on the establishment and our water-courses resisted the wet weather exceedingly well. Metalling our roads in season saved them.

EAST DEL REY.—Wm. Treloar, Sao Vicente, May 17: Towards exploring the jacotinga I am doing but little as yet, I have merely got three persons at work there driving a cross-cut to intersect the formation; 11 fms. have been driven, and there are about 10 fms. more to drive; the ground has been favourable, but at present it is soft, and requires timbering. The lode in the bottom of the old mine is much the same as when last referred to. The falling off in the quality has greatly interfered with the obtaining of produce for the time being, but I hope that the works in hand at the eastern section will be the means, after awhile, of securing to the company increased and more permanent returns. At the Tatoo level the lode has become very contracted, on account of a swell in the hanging-wall, but it is enlarging again. At No. 1 level west the lode has somewhat enlarged, and shortly I propose to commence stoping it from the bottom of the level. The new pumping-wheel referred to in my last is completed, with the necessary stands, bobs, rods, &c., and a new 5-in. working-piece has been stocked, and fixed with 8 fms. of pumps in the old works, to enable us to commence sinking the diagonal shaft. Owing to some old workings just intersected, which were made nearly in the direction in which our shaft will descend, I hope to be enabled to open the desired communication with our works at the experimental shaft in less time than was anticipated. After the above communication is effected we shall widen the diagonal shaft to the size required for the incline plane and pitwork, and raise the collar of the shaft, to prevent our works being flooded in the rainy season. While the above works are in hand a new horse-whim will be prepared to command the extraction of the ores from this section. A tramroad will also be made on the side of the mountain for conveying the ores to Hill's stamps. Since my last we have not stamped any stuff from the eastern section. We have a great many tons broken, which we shall commence stamping to-day, but it is not, I believe, very rich, it having been obtained principally in rising towards the diagonal shaft, and contains much killas. Produce for the half-month amounts to 374 oitavas. I expect it will be for the month about the same as it was last.

ST. JOHN DEL REY MINING COMPANY (LIMITED).—Advices from Brazil, received May 31, per Royal Mail steamer *Rhone*:—

GOLD EXTRCTED TO DATE.—The produce of the stamps for the second division of April, being a period of ten days, amounts to 14,362 oits. It has been derived as follows, viz.:—

	Oitavas.	Tons ore.	Oits. p. ton.
From General stamps	9098	from 1063·2 =	8·557
,, Herring ditto, East Bahu	2791	316·8 =	8·809
,, Lyon ditto, M. and W. Cachoeira	2473	333·6 =	7·413
Total produce	14,362	1713·6 =	8·381

Advices received June 19, per steamer *Guienne, via* Bordeaux.

Morro Velho, May 17.—GENERAL OPERATIONS: Both at surface and in the mines our general work has been carried on with regularity, and without any interruption. The weather has been favourable for carrying on surface work, and we have had a good supply of water to work both the pumping and hauling machinery on the mines, and also for driving the stamps and machinery in the reduction department.

PRODUCE.—The gold return for the month of April amounts to 50,046 oits. It has been derived as follows:—

	Oitavas.	Tons of ore.	Oits. p. ton.
From General stamps	29,567	from 3126·4 =	9·457
,, Herring ditto, East Bahu	8,403	930·4 =	9·031
,, Lyon ditto, M. and W. Cachoeira	7,728	962·4 =	8·029
Total stamps produce	45,698	5019·2 =	9·104
Arrastres produce	1,718	=	0·342
	47,416	=	9·446
Praia (stamps and arrastres)	2,630		
Total produce	50,046		

COST AND PROFIT.—The gold produce for April being 50,046 oits.

Deduct loss in melting into bars ..... 283 oits.=49,763 oits.

At 7s. 9d. per oitava £19,283 3 3

Cost—Labour .... Rs. 59,624$571 } =Rs. 114,396$074, exchange 24⅜d. 11,797 1 11
Other charges Rs. 54,771$503 }

Profit for the month of April ..... £ 7,486 1 4

The cost of Fernam Paes estate for the month of April is Rs. 1202$282, at Exchange, 2s. ¾d.=123*l.* 19s. 8d. The labour cost is about 600*l.* less than was incurred in March, but the outlay for materials is unusually heavy. It has been increased by using a considerable amount of heavy and expensive wrought-iron pumpwork, which, however, as previously advised, though greatly increasing the cost for the time being, will effect a saving in the end by making the pumps and inclined planes more effective in the performance of these essential parts of the mine duty, in sinking the mines, and in getting up a full supply of ore for the stamps. The cost is heavy, but that which has augmented it above the average consists in outlay of a valuable kind, as regards the future and more effective working of the mines, both in the hauling and pumping operations.

MINES.—In the month of April we have had a very good force in the mine department. The natives give the following attendance:—

Native borers, daily average	290·00	
Others ditto	14·36=304·36	
Natives working, daily average		448·32
Others, ditto		447·88
Average daily force in mines		896·20

being about three daily under what we had in March.

The number of wagons quarried and conveyed to the surface amounts to 9530, or equal to a duty of 31·31 wagons per borer employed. According to the reduction account these 9530 wagons gave 8292 tons.

CACHOEIRA MINE.—I am glad to be able to report that the sump has been sunk 6 ft. vertically, and the stoping both east and west carried on with regularity. The lode in the sump and middle sections continues contracted and exceedingly hard to quarry, it being necessary to carry a good deal of killas in this section, while east and west the lode is good and clean, and yields fully average produce.

In the BAHU the sump has been sunk only 3 ft. vertically owing to the time spent in taking off another stope from the wide sump. The stopes are now in fair working gradation, and are being regularly quarried from east to west. The mass of the lode continues about the same in quality, though there are sections, as already described, which continue to show some more and some less killas locally as the stopes pass over them. There has been a large amount of timberwork performed, although the large quantity of timber consumed does not sufficiently indicate the general work here referred to. A very considerable amount of repairs has been effected in the upper parts of both the Bahu and the Cachoeira Mines.

PRAIA WORKS.—The gold return from these works has been as follows:—From stamps' sand re-teated with killas, 1592 oits; from arrastres re-teatment of lead, 1038 oits.: total, 2630 oits. The above produce from these works, compared with the general return at Morro Velho, is very good. The arrastres have given here on average produce of 5863 oits. per diem. The supply of water has been sufficient to keep the whole of the machinery working at full speed, and the duty performed is above the average.

GOLD EXTRACTED TO DATE.—The produce of the stamps for the first division of May, being a period of 11 days, amounts to 16,788 oitavas. It has been derived as follows:—

	Oitavas.	Tons of ore.	Oits. p. ton.
From General stamps	10,023	from 1184·8 =	8·459
,, Herring ditto, East Bahu	3,302	356·8 =	9·234
,, Lyon ditto, M. and W. Cachoeira	3,463	356·8 =	9·705
Total stamps produce	16,788	1898·4 =	8·843

The above return is about the same as that reported in a previous letter for the second division of April. The produce from the General stamps is rather lower than we have had, but the yield from the Middle and West Cachoeira continues uniformly good. The next divisons' produce from the General stamps may be better, as there will be a better stope entered, and to draw from in the Bahu Mine.

MINERAL RESOURCES OF TURKEY.

The position of the trading companies established within the last few years in connection with the Turkish empire at present exciting much consideration, the work just published (through Messrs. Low, Son, and Marston, entitled "Turkey") by Mr. J. LEWIS FARLEY, F.S.S., cannot fail to prove of general interest, from the vast amount of information it contains, calculated to direct attention to the resources of that empire most likely to give profitable results to the English capitalists engaging in their development. Mr. Farley commences with an account of the earliest Ottoman rule in Asia, and traces with care and judgment, and as concisely as possible, the progress of the empire, and the important changes which have from time to time been introduced to improve its internal condition, from the ordainment of the Hatti-scheriff of Gulhane until this day, the result being in effect that the resources of Turkey are ample to secure both happiness and prosperity, but that the laws are still two illiberal to permit of the profitable employment of English capital in that direction; attention is given to the points which still require modification, and if the hints given be availed of there can be no doubt that in a few years Turkey will be favourably known as a field for enterprise. With these brief remarks the general contents of the book will be disposed of, the portion of the work especially referring to the mineral resources affording abundant material for the consideration of the readers of the Journal.

The manufacturing capabilities of any country must be primarily based on its mineral resources, which, when abundant and diverse in character, are the sure presage of a splendid future. The mineral wealth of Turkey is undoubtedly very great, and of an exceedingly varied character. The mines of Roumelia and Asia Minor are famed in history for their richness and productivness, and although their prosperity declined with the civilisation to the necessities of which they ministered, the strata in which the ores are embedded remain, and only await the advent of the steam-pump and the modern genii of the lamp to furnish tangible proof of their unquestionable value. Coal is found in the mountain ranges of Roumelia, as well as in the districts of Asia Minor, forming the southern coast of the Black Sea. The Taurus range is celebrated for the richness and abundance of its copper. Silver and lead are extensively found, both in the European and Asiatic divisions of the empire, while gold is stated to be not an uncommon product in the mines of Thessaly. The islands of the Ottoman archipelago, once famous for their mineral riches, as well as for the rarity and value of their gems, form so many reserves of mineral treasure, nothing being wanted but steam, skill, and capital to make their hidden wealth available. After referring to the Heraclea coal field, and the value of the mineral produced, both of which are familiar to the readers of the Journal, Mr. Farley continues that the metalliferous minerals of Asia Minor are comparatively unworked. The silver mines are miserably represented by an annual production of 500,000 okes (600 tons), and the copper mines by about 1,000,000 okes (1200 tons), a quantity Mr. Farley remarks, which a single mine in Great Britain would turn out in a month. In Europe, as in Asia, the mines are all but neglected, and the transparent absurdity of leasing the whole of the mineral deposits of two entire provinces, embracing about 300 miles of sea coast, and containing an almost incredible amount of mineral wealth, in consideration of an annual payment of 650*l.* by way of commutation of all burdens, both State and local, is not calculated to mend the matter. The fortunate proprietor of this valuable grant is said to have expended not less than 50,000*l.* in smelting and refining works for the Mount Pellon Works alone, the lead ores from which are exceedingly rich both in lead and silver. Under these circumstances it is marvellous that the Mount Pellon metals have not long ere this made their appearance in the English market, for it would have been thought that had the mines been as rich as represented the holder would have occupied himself with doubling his capital monthly, even though the market might be slightly overstocked by such operations. Mr. Farley considers that such a hugh monopoly must be exceedingly detrimental to the mining interest.

The Turkish laws seem calculated at once to scare the capitalists of Western Europe from attempting the development of the mines, and loss and annoyance are the only results that could reasonably be anticipated. In Turkey, says Mr. Farley, the right to all minerals is vested in the State, and permission to search for mineral deposits, and to work them when found, is hedged in by so many restrictive formalities as to present a serious drawback to legitimate enterprise. The rule that permission to search for minerals, and to extract the same, shall be accorded only to subjects of the Empire is, under present circumstances, founded in justice, foreigners only being able to share in the risk and profit attending on mining adventure as shareholders in companies, but the rule against either increasing the number of the partners, or the original capital, of any society, without the consent of the State, is so unreasonable as to make any benefit arising from participation in the work altogether inoperative. The rule that at the expiration of the time accorded in the firman the whole of the immovable property on the mine (which Mr. Farley defines to mean everything from a steam-engine to a pickaxe) becomes the property of the State, and must be paid for at a valuation by Government officials, even if the right to work is re-accorded to the original grantee, is a measure of peculiar severity. He maintains that the system is radically unsound which leaves the value of the interest which the State holds in the minerals for regulation in every firman, and rising, of course, with the amount of preseverance, skill, and capital brought to bear upon the preliminary researches. He concludes that the Government of the Sultan would appear to be fully sensible of the great value of the mineral deposits which undoubtedly enrich the soil of Turkey, but they hardly seem to adequately realise the axiom that the value of a mineral deposit dates from its discovery, and that in order to realise that end inducements of a most liberal character should be offered to those who are sufficiently enterprising to accept the task. A most objectionable feature in the Turkish mining code is the grant of permission to work only such minerals as may be specified in the original demand. The deposit of caution money, again, is at the best an ill-advised expedient for securing the fulfilment of a contract; its lodgement is no proof whatever of the means of the individual, and disputes arising from its detention almost invariably tend to bring the detaining Government into disrepute.

In subsequent chapters the state of banking in Turkey, the commercial finance of the empire, the principal business centres, and other interesting matters connected with the country are in turn treated of—the work, as a whole, forming as interesting a volume as could be desired. The data have, undoubtedly, been collected with the utmost care, and are presented in a thoroughly attractive form. The volume is deserving of the patronage of all connected with the East, whether commercially or otherwise.

NEW INVENTIONS.

PROVISIONAL PROTECTION for six months has been granted for:—

J. THOMAS, Battersea, and A. PRINCE, 4, Trafalgar-square.—Improvements in the means of treating scoria or slag of copper ores, iron pyrites, or scoria from other ores containing iron, and of reducing titanic iron ore, for the purpose of extracting the iron therefrom. May 17.

D. J. FLEETWOOD, Birmingham.—Improvements in machinery for raising and stamping metal. May 17. [pounds of tin. May 22.

J. J. MARCAIS, Paris.—Improvements in the treatment of slags, ores, and com-

C. T. HILL, Pelsall, Stafford.—Improvements in rolls for rolling metal. May 28.

B. F. STEVENS, Henrietta-street, Covent-garden.—A new or improved method of treating permanent inflammable gases, whereby greater heat is obtained therefrom. June 15.

ASA LEES and J. SLATER, both of Oldham, Lancaster.—Improvements in machinery for making moulds for casting iron and other metal. June 16.

G. H. MUNTZ, Birmingham.—Improvements in the manufacture of fittings for gas, steam, and water tubes. June 16.

G. L. LECLANCHE, Rue Gaillon, Paris.—Improved voltaic piles. June 16.

LETTERS PATENT have been issued for the following:—

A. BUDENBERG, Manchester.—An improved blasting-powder. Dec. 12.

T. B. DŒING, Bayswater.—Improvements in machinery for boring rock and other minerals. Dec. 13.

C. PENGILLY, Falmouth.—Improvements in the treatment of sulphurous and arsenical pyrites containing copper and tin. Dec. 16.

W. HARRISON and T. WALKER, both of Blackburn.—Improvements in machinery for boring, turning, and shaping articles of metal. Dec. 29.

W. JEFFRIES, West Bromwich.—Improvements in puddling-furnaces, heating-furnaces, and other reverberatory furnaces used in the manufacture or iron and steel. Jan. 22.

SPECIFICATIONS published during the week:—

Pigments, 4d.; converting wrought or malleable iron into steel, 4d.; boring rocks, 3s. 4d.; manufacture of iron, 4d.; manufacture of cast-steel, 4d.; treating copper and nickel ores, 4d.; ingot moulds, 4d. L. DE FONTAINEMOREAU.

NON-ALLOTMENT OF SHARES.—In *re* the Chesterfield and Midland Colliery Company, where a person had paid a deposit on application for shares in this company, but the shares were never allotted, it was held by the Master of the Rolls that he was not liable to be placed on the list of contributories. For the purpose of allotment it is not sufficient to place a man's name on the list of shareholders if he is not placed upon the registered list within a reasonable time after application for shares.

DIRECTORS AND SHAREHOLDERS.—It is the duty of directors of companies fully to explain, as occasions may arise, everything connected with their trust to the shareholders, and to show that there is no transaction with which the directors are mixed up by or out of which they can make any profits unknown to the shareholders. Directors are also bound, as trustees, to do the best they can for their shareholders; and no director, therefore, has a right to derive any private or personal emolument out of anything connected with his trust. But the misconduct of directors, however it may expose them, as a body or individually, to be brought to an account before a Court of Equity, will not, in every case, entitle a shareholder to present a petition for a winding-up order, unless such misconduct has been of so gross a nature as to lead to the insolvency of the company. These propositions were laid down by the Master of the Rolls, in *re* the Anglo-Greek Steam Navigation Company, upon a petition by two shareholders, praying an order to wind-up the company.

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—J. Phillips, June 20: The stopes in back of the 115 west produce 3½ and 2½ tons of ore per fm. There has been no lode taken down in the 103 west. There are three stopes in the back of this level, producing 3½, 3½, and 2 tons of ore per fm. There is no change to notice on the north lode.

BRONFLOYD UNITED.—Thos. Kemp, June 20: In the 52, west of winze, the part of lode carried produces 10 cwts. of lead per fm. The ground in the cross-cut to new shaft is hard to open. The stopes east and west of winze, in the 52, continue to yield about 20 cwts. of lead per fm. I have set a tribute pitch above the 40, to four men, at 12s. per ton, the takers to pay all costs. We have sampled this day 42 tons of lead ore, for sale on the 30th inst.

BRYN GWYN.—John Andrews, June 19: The rise in the end of the south-west level, from the middle of the incline, east of shaft, is rather hard. We are getting some nice lumps of ore in the south end rise, where there is a narrow east and west joint crossing, but the north end is poor. There are two men driving a cross-cut west, a few fathoms from this rise, to ascertain whether the other branch, belonging to this joint, which should be carrying along the west side of this, is productive or not. It will be remembered that this (the No. 2 run of ore) split into two branches after it crossed under the incline, and we are now working on the eastern branch, the other being close and unproductive when we suspended working on it. There are also two men trying in different places on the west side of the No. 2 level, north of incline, and they are getting a small quantity of ore. The lower level, driving south-west from incline, is much harder, the joint being filled with strong boulders of limestone. We have not done much in the end of Clark's level, driving north, as we have been obliged to put a rise up through to the old workings for ventilation, and we have holed it to-day. We are preparing some ore for sale, in quantity about 8 tons.

CAMBORNE VEAN.—N. Clymo, June 20: The winze in bottom of the 120 is driven about 8 ft., and is producing some good stones of copper. The 135 east continues worth 4 tons of ore per fm. The winze under the 135 is down 5 fms.; lode 2 ft. wide, with good stones of ore. The 150 east and west is still worth 4 tons of ore each per fm. Since the last report we have had a considerable improvement in the 165 east; the lode is 3 ft. wide, and will now turn out 4 tons of copper ore per fathom.

CAPE CORNWALL.—R. P. Goldsworthy, June 20: We are driving the lode in the 90 end west, and shall commence to take it down in a few days. We look forward to a great improvement for copper. The lode in the 80 west retains its size, fully 7 feet wide, composed of spar, peach, prian, and producing good stones of tin, thickly sprigged with copper ore—very promising for copper. The lode in the 70 end west continues to produce an abundance of mundic and good stones of yellow copper ore. The channel of ground at the points referred to is all that can be desired, and the composition of the lode is good, similar to that of the copper-producing mines of the district. We think we are justified in expecting equally good results; if our anticipations are not fully realised, it will be an exception. I will forward to the office to-day a box containing stones of ore from the 70 and the 10 west, which we broke yesterday.

CARADON AND PHŒNIX CONSOLS.—W. Richards, June 21: The engine-shaft has been sunk to the depth of 18 fms. below the 30, on the course of No. 1 lode; the ground in the deepest point is stiff granite, strongly mineralised with small branches of fluor-spar, mundic, and copper ore; the lode is a little smaller at the present time, but more promising, being 2 ft. wide, and contains less capel, an increase of quartz, peach, prian, mundic, and good quality copper ore; water still issues very strongly from the deepest point, and the prospects of the mine are encouraging. We expect to put the new wheel with its connections to work in about three weeks from this time.

CARADON CONSOLS.—S. Bennetts, June 19: The ground in the winze below the 54 continues favourable for sinking, without any alteration to notice in the character of the lode. The lode in the 80 east is from 9 in. to 1 ft. wide, containing some good ore, but not enough to value. There has been no lode taken down in the rise since last reported. In the 80 west end the lode is 1½ ft. wide, and worth from 6l. to 7l. per fm.; towards the bottom of the end, however, it is better than in the back.

CASHWELL.—John Peart, June 20: The stope in Scar limestone is not looking quite so well this week. The slaty hazle is very much improved; where we are rising it is worth 16 cwts. per fathom. At Dawkes's we are sinking to try the vein in the Scar limestone, but have not got through the plate yet. We have delivered to Messrs. Shield and Dinning this week 40 tons of lead ore, at 13l. 12s. 6d. per ton.

CASTELL CARN DOCHAN (Gold).—J. Parry, June 20: The No. 3 stope north-east continues to yield fair stamping stuff; the width of the lode is 4½ ft. The other underground stopes, Nos. 1 and 2, are without any change, the lode in them being about 2 ft. wide. The lode in the smithy stope is full 6 ft. wide. Some gold was seen in the stuff yesterday. The lode has also improved a little in the north-east driving from the new shaft. The machinery is in good order, and works well. Gold obtained from the amalgamators this morning, 9 ozs. 3½ dwts. Stuff stamped this month up to date, 114 tons. The gold obtained in May month was 49 ozs. 14 dwts., from 197 tons, making a total from the commencement of 1307 ozs. 18 dwts., from 2369 tons of lodestuff.

CENTRAL MINERA.—T. Hughes, June 21: Victoria Engine-shaft: The 60 yard level east continues in good ground, and at present very promising for lead. The stope in the back has rather improved for lead, with a good prospect for continuing.

CLARA UNITED.—J. Davis, June 20: Llywernog: The mine is now drained to about 3 ft. below the roof of the 50, and the men have commenced stoping in the back of that level. The other bargains are progressing satisfactorily. We have sampled 15 tons of lead ore this day, for sale on the 30 inst.

CORNISH CLAY AND TIN WORKS.—W. H. Willcock, June 21: Our new level, we are driving forward to enable us to open out upon the new bed of superior quality clay, is steadily progressing with by a full pare of men. We have unexpectedly met with a course of several fathoms of very hard ground to drive through, which has somewhat impeded the expected progress this month, but from appearances is now changing, when we shall speedily make ahead to be upon this run of clay, proved so very superior.

CROWAN AND WENDRON.—R. Reynolds, June 19: During the past week the engine-shaft has been cased and divided from the 48 to the 60, where the shaftmen are now engaged cutting a plat. The lode in the 48 east is split into two parts.

CUDDRA.—Francis Puckey, Arthur Cundy, June 18: Since the last general meeting, held on Feb. 9 last, we have completed the sinking of Walker's shaft from 4 fms. below the 117 to the 130, inclusive of 12 ft. for fork and trip-plat below that level. The shaftmen are now engaged cutting the plat and making the necessary preparations for casing, dividing, and bed-planking the shaft below the 117, in order to bring the whim-kibble to the 130 for drawing the stuff, which work we hope to have completed in about six weeks. We shall then commence the driving of the 130 west with all possible dispatch, to get under the best course of tin we ever had in the mine, gone down from the 117. The 117 is driven west of No. 1 winze 9 fms.; the tin part of the lode is cut out for that distance, which has been very large and priductive. The south part of the lode has been carried 10 ft. wide, and has yielded for that width 1 ton of black tin per fathom. We have cut out a portion of the lode still further north, and in places of from 4 to 6 ft. wide we find good work, producing about 4 cwts. of tin to the 100 sacks. Further north of this point we have a large run of gossan, which we are driving a cross-cut through, expecting at the north thereof to intersect the north lode, which is so very rich for tin in the Charlestown United Mines, and the working of which is getting near the Cuddra'sett, only at a greater depth than our bottom level. In the 117 end west the tin part of the lode is now 8 ft. wide, and contains a little more gossan than formerly, and is worth for tin 35l. per fathom. We have commenced stoping the lode in back of the 117, east of the winze, where it is 12 ft. wide, worth 45l. per fatnom for that width. In cutting out the lode east of No. 1 cross-cut, and towards the shaft, the south or in part of the lode, for 6 ft. wide, is worth 7l. per fathom. In No. 1 stope, in bottom of the 105, the lode is 7 ft. wide, worth 18l. per fathom. In No. 2 stope, in bottom of same level, and west of the winze, the lode is 11 ft. wide, worth 30l. per fathom for that width. In consequence of the exceedingly low price now obtained for tin, we have deemed it prudent, in comoun with most other mines, to suspend the working of such portions of our tin ground as cannot be advantageously worked at the present depressed standard—the stopes in back of the 105 and in the 60—and we consider it for the company's interest to let these places alone for the present, and confine our operations to the ground below the 105. During the last four months we sold from this mine 25 tons 7 cwts. 1 qr. 22 lbs. of black tin, being an increase on the previous four months, 8 tons 2 cwts. 2 qrs. 8 lbs. Had the quantity sold realised what is considered only a fair price for tin, we should have paid the whole cost of the mine. On the whole, our prospects as regards the mine itself are exceedingly encouraging, and to the present time we have not in the least been disappointed in our expectations below the 105. Should there be a corresponding improvement in the 130 as in the 117, of which we have strong hopes, we have no hesitation in stating we want but a fair price for our tin to place us in a reasonable prospect of being established as a profitable mine.

DALE.—R. Niness, June 18: The different places at work in the new mine are without alteration; the vein in the old mine continues to look most promising.

DEVON AND CORNWALL UNITED.—T. Neill, June 19: There is no change to notice in the 24 cross-cut, west of Ley's shaft; the indications for the lode are very favourable.—William and Mary: The lode is still looking well in the 34 east, and also the stope. No other change to notice.

EAST BOTTLE HILL.—J. Eddy, June 21: The lode in the end, west of tde western shaft, is small, and for the present poor. The lode in the end driving west of the adit level is about 3 feet wide, producing tin; we find the lode in this level very changeable. The masons have not yet finished the walls of the wheel-pit, but will be completed in a few days.

EAST CARADON.—John Truscott, June 20: Caunter Lode: The 90 east is worth 30l. per fm. The 80 east, is worth 15l. per fm.—South Lode: The 90 fm. level west is worth 10l. per fathom. The 80 east is saving work. The 70 west is worth 20l. per fm. The 70 east is worth 15l. per fm. The 60 east produces stones of ore.—New Lode: The 70 west is worth 8l. per fathom. In the 100 cross-cut south we believe we have intersected the caunter lode; it is about 3 ft. wide, but disordered, being intermixed with elvan, producing a little ore. We shall at once open on its course, when no doubt it will improve.

EAST GUNNISLAKE AND BEDFORD CONSOLS.—J. Phillips, June 21: In Gard's shaft the ground has much improved for progress. The other parts are much the same as reported last week.

EAST JANE.—J. Seccombe, Thomas Hodge, June 21: There is no change to report in any of the bargains, with the exception of a slight increase of water in the 48 south, on western lode.

EAST PROVIDENCE.—J. Nancarrow, W. White, June 20: We are pushing on Boorman's shaft as fast as possible; the lode is 1¼ ft. wide, and yields a little tin. The lode in the 82 east assumes a more regular appearance, and yields tin to save. The 70 east is improving; the lode worth 8l. per fm. The lode in the winze below the 50 is worth 4l. per fm.; here we expect to have communicated with the 60 before this time, but there are yet 2 ft. of ground to be sunk through. We have set two more pitches—one in back of the 50, and one in back of the 60, at an average tribute of 12s. 2d. in 1l. The other pitches look just as at the setting-day.

EAST ROSEWARNE.—J. James, June 21: The lode in King's shaft is 2 ft. wide, producing stones of ore. In the 85, east of King's, the lode is small and poor. In the 85, west of King's, the lode is 15 in. wide, improving in appearance, and worth 4l. per fm. In the 85, east of Hallett's shaft, the lode is small and poor. There is no change to notice in the 85, west of Hallett's, we are driving in the slide, which dip but very little. The stope in the back of the 85, west of Hallett's, is worth 10l. per fm. The stope in the back of the 75, east of King's, is worth 9l. per fm. The stope in the back of the 75, west of King's, is worth 12l. per fm., and the stope in the bottom of the 65, west of King's, is worth 8l. per fm. We calculate to sample on Tuesday next about 150 tons, of our usual good quality ore.

EAST SNAEFELL.—Wm. H. Rowe, June 20: We have started to drive out a 9 fm. level at the Glen Cherry shaft to prove the position and dip of the orey ground; and in the north end, driven about 4 ft., there is a little ore making its appearance, mixed with favourable quartz; I expect an improvement here shortly. No lead as yet in the adit north, but the miners' parlance 'almost everything but ore.

EAST ST. JUST UNITED.—John Carthew, June 20: Saturday last was our pay and setting in these mines, when we set Phillips's engine-shaft to sink below the 10 fathom level. The shaft is now down 10 fathoms below the 10. We shall only sink 1 fathom more for fork, and then begin to drive the 20 on the lode. As soon as we can get things round we shall begin to sink to the 30. We shall take down the lode in the 20 before next setting. We have set the 30 to drive east and west from North Bosorne shaft. We have a good tin lode in a winze below the 20, east of North Bosorne shaft. We have set this winze on tribute to five men, at 10s. in 1l. We have set Cranjack engine-shaft to sink below the 20; the 20 and 10 fathom levels to drive east of this shaft, in a large, kindly lode. We have set stopes over and under the 10, at 15s. per fathom, and 10s. in 1l. for tin.—Tribute Setting: One pitch, by five men, at 10s.; one pitch, by four men, at 11s.; one pitch, by two men and one boy, at 13s. 4d.; and five pitches, to ten men, at 15s. in 1l. This looks better than any month before. In clearing the deep adit level east, on Wheal Venton lode, from our new shaft, we have discovered the old miners' engine-shaft, and cleared up this old shaft to the deep adit level, and are now clearing it up below the deep adit. As soon as we have cleared up 5 fathoms we shall be able to employ several men in stoping below the adit level in good tin ground. These mines were never looking so well before since we began to work.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennets, June 20: The lode in the engine-shaft sinking below the 85 is from 15 to 18 inches wide, consisting of quartz and prian, with a little tin, and stones of ore. The lode in the 85 west is in two parts; we are driving on the south part, which is 1 foot wide, letting out more water, and producing stones of copper ore. The ground to the south of this part is a very pretty elvan; in fact, the same kind of rock as preceded the ore in the 75 and 65; therefore, we have a good opinion that it will lead to similar results here. The lode in the stope above this level, and east of the winze, will produce 3 tons of ore to the fathom; and the lode to the west of the winze is worth for ore and tin 15l. per fathom. The lode in the 75 east is 15 inches wide, producing good stones of yellow ore, embedded in a congenial quartz; this is a very promising lode. The ground in the 75 cross-cut north is without any change, and continuing to let out plenty of water. Two stopes above the 75 west worth 5l. per fathom each for ore and tin. All the other places the same as before reported.

EAST WHEAL GRYLLS.—Edward Rogers, Edmund Rogers, June 21: In the bottom of the 7, east of Curtis's shaft, we have two stopes working by 12 men. No. 1 is worth 7l. per fm.; and No. 2, 3l. 10s. per fm. In the back of this level the lode in the stope is worth 3l. per fm. In the bottom of this level west the lode in the stope is worth 8l. per fm. In the rise in the back of this level the lode is worth 6l. per fm.

EAST WHEAL LOVELL.—R. Quentrall, June 20: There is no alteration to notice since last week.

EAST WHEAL RUSSELL.—J. Goldsworthy, June 20: Homersham's shaft is in regular course of sinking below the 140; fair progress is being made. The 140 fm. level cross-cut, driving north-east of Homersham's shaft; the strata being rather more compact, renders the progress not so rapid as we could wish, although fair progress is being made. The stope in the back of the 130, east of Barkell's rise, is worth 12l. per fm. The stope in the back of the 130, west of Barkell's winze, is worth 10l. per fm. The stope in the back of the 130, east of Barkell's winze, is fallen off in value, worth 4l. per fm.

— J. Richards, June 21: Homersham's shaft is in regular course of sinking in ground fair for progress. In the 140 cross-cut north the ground is rather hard; the progress is, therefore, not so good as we could wish. The lode in the stope in the back of the 130, east of Barkell's rise, is worth 12l. per fm. In the stope in the back of the 130, west of Barkell's winze, the lode is worth 8l. per fm. In the stope in the back of the 130, east of Barkell's winze, the lode is worth 4l. per fm.

FORTESCUE CONSOLS.—W. H. Willcock, June 21: We have further improvements in the lode as we extend our drivage, having a branch of silver-lead and antimony ore, saving work, with appearances of increasing in size, consequently we are daily enlarging our piles of ore at surface.

FRANK MILLS.—J. P. Nicholls, J. Cornish, F. Cornish, June 20; The engine-shaft is now sunk the required depth below the 130 fm. level plat, for skip, pits, fork, shoots, &c.; we shall now get in shoots as soon as possible to facilitate our drawing. The 130 north, on the east lode, has improved, and it will yield 7 cwts. of lead ore per fathom, with very strong indications for still greater improvement. The 130 south, on the same lode, is not so good, but where we are taking down the lode behind the end it will yield 2¾ tons of lead ore per fathom for its width. The ground in the 115 north is very favourable for progress; the lode here is unproductive of lead ore to value at present, but producing a small quantity of blende. The north stope, in the back of this level, is improving, the lode in which is now yielding ½ ton of ore per fathom. The new winze sinking in the bottom of the 100 north is down about 4 feet; the lode as yet is unproductive of lead ore to value, but the ground, however, is good for progress. The two stopes in back of this level are yielding respectively ½ ton and 7 cwts. of lead ore per fathom. The wide stopes in back of the 45 north are still falling off in their yield of ore; their present yield is as follows:—5 cwts., 5 cwts., 4 cwts., and 3 cwts. of lead ore per fathom. The 45, north from the engine-shaft, is not looking quite so good as last reported, whilst one of our tribute pitches in the back of this level has improved.

FURSDON.—June 20: The engine-shaft is 8 fms. 1½ ft. below the 31. There appears to be a run of killas coming out from the north side, similar to what runs parallel with the lodes in the levels above. The 31 west is 31 fms. 2 feet west of the shaft; no change to notice in the ground. The 11 east remains hard, and the branch continues 9 in. wide in the bottom of the end, with a leader of ore almost to the back of the end 2 in. wide, which appears like the top of a good shoot of ore. The stope in back of the 11 east at present yields 2½ tons of ore per fathom. The stope is almost close to the end, which will yield full 3 tons of ore per fathom, so that in a day or two we shall raise more ore.

GAWTON COPPER.—Geo. Rowe, G. Rowe, jun., June 16: The ground in the 60 cross-cut still continues of a good description, and rapid progress is being made. The lode in the 50 east is worth 2 tons of ore per fm. The 50 west is yielding very strong mundic, intermixed with ore. The stopes in the back of this level are worth 4 tons of good quality ore per fm. The lode in the 40 west is worth 4 tons of ore per fm. The lode in the rise in the back of this level is worth 3 tons of ore per fm. The lode in the winze sinking below the 36 is worth 1 ton of ore per fm. The 50, west from old sump, is worth 5 tons of ore per fm., with a very promising appearance. We have to-day connected the second boiler to the pumping and whim-engines, and are now engaged in getting up steam, all of which we calculate to be in first-rate condition.

GOTHIC.—J. Lester, June 20: The lode in the 30 has improved for lead ore during the past week; the ground is now very wet and hard. No alteration in character of the south lode from the 25 cross-cut; there is lead, but not yet sufficient to value. The ground in the cross-cut, north from the 17, is now rather hard for driving. I think next month it will be desirable to put six men in it, so as to get quicker to the north lode; the distance to drive I calculate to be about 12 fms. The communication to the shaft from the surface cross-cut will be made by the end of this week. We shall want about 1 ton of tramroad iron to lay down a road through the cross-cut from surface to engine-shaft. I have got the lime we required on the mine. We have rain in Wales every day of late.

GREAT BRIGAN.—J. Tredinnick, June 20: No change has taken place to report on during the past week.

GREAT CARADON.—S. Harpur, June 18: The ground in the shaft is much the same as for some time past. During the past week we have sunk through a small branch, composed of mundic and spar.

GREAT MONA.—J. Kitto, June 21: Since my last report no change has taken place of sufficient importance to call for any special remark. The new shaft at the Cornea Bridge has just touched upon the hanging side of the lode, but is not sufficiently into it to enable me to say anything of its character, or of its future probable results. We have determined to draw out the water from the old workings at Ballaglass, where, judging from reports of those who previously worked there, we may reasonably expect favourable prospects. We have sunk 7 fms. through soil, on the north side of the river, near the beach, but without any sign of rock. Our future operations will be conducted for some time on the south side of the river, and on the course of the lode. In driving north, on the north and south lode, in the cliff, the prospects are more encouraging; the lode is daily getting wider, and of a more promising character. All surface operations are being pushed forward as rapidly as possible.

GREAT NORTH DOWNS.—Thos. Rich, M. Jenkin, June 20: The 60 and 70 fm. level ends, west of Sleggan's shaft, are yielding good stones of ore, of a kindly character. The rise in the back of the 60 is worth 7l. per fm. We have a large force of men employed in the 20, at Sleggan's shaft, making room for pitwork. The winze in the bottom of the 60, and the stopes in the 57, west of King's shaft, are suspended for the time, as we cannot haul through Sleggan's shaft for a week or ten days, until a certain stope of ground is worked away. The winze in the 70 is dry, and the sinking resumed. Sleggan's shaft is not yet drained, but the water at King's shaft has abated very much, and we think we shall be able to resume operations here very shortly. We are urging on the sinking of Butler's shaft below the 47, and believe we shall soon open up profitable ground.

GREAT NORTH LAXEY.—R. Rowe, June 19: The improvement in the main engine-shaft continues, and, from the influx of water, I judge we are again near some open ground; the lode is still 6 feet wide, and worth fully 2 tons of lead per fathom. The 72 fm. level end, north, is improving in general appearance; the lode is 4 ft. wide, well defined, and worth about 15 cwt. of lead per fathom. The 60 fm. level sump is being vigorously persevered with, in order to ventilate the levels below. The stopes in the 60 fm. level north continue to be worth about 1 ton of lead per fm. I fully expect, from the favourable changes just now taking place, in the engine-shaft especially, soon to be able to report some considerable improvements. The surface work necessary for the new wheel and new road is rapidly progressing.

GREAT SOUTH CHIVERTON.—J. Nancarrow, June 19; The 20 fm. level cross-cut is in 3 fms. north of the main lode, and at that point we have reached another lode, which is 1½ ft. wide, composed principally of quartz and flookan; has a leader of rich copper ore on the north wall, and contains some very good lead. It is letting out a great quantity of water, and presents a most encouraging appearance. The blende continues in the 20 east, and the men are making better progress in driving. The 20 west looks very promising, and towards the bottom of the end yields lead to save.

GREAT SOUTH TOLGUS.—J. Daw, June 20: In the rise in back of the 166 the lode is 1½ ft. wide, producing 1 ton of ore per fm. In the winze sinking below the 154, and west of new shaft, the lode is 2 ft. wide, producing 1½ ton of ore per fathom. No alteration in any other point.

GREAT WHEAL BADDERN.—R. Pryor, H. Tregoning, June 16: We have set the following bargains to-day:—The 75 fm. level cross-cut to drive south of Hill Brothers engine-shaft, by six men, at 14l. per fm.; the end is still in the elvan course, and the water still increasing. The 63 cross-cut to drive south of shaft, by four men, at 11l. per fm.; the water in this end has within the last day or two very much increased, and the ground is composed principally of mundic and spar, mixed with killas. The boiler is fixed, and the masons busily employed in building it in, flues, &c.

GREAT WHEAL BUSY.—W. Rich, J. Tredinnick, C. Bawden, June 16: The lode in the 140, west of No. 2 cross-cut, is much the same as when last reported on—a strong kindly lode, yielding good stones of tin. The 130, east of Offord's shaft, is looking somewhat better than of late, producing good stones of ore, and showing good indications for an improvement. The three stopes working in the back and bottom of the 130 are yielding about 14 tons of copper ore per fathom. There is no lode yet intersected in the 120 cross-cut south. The south part of the lode in the 110, east of Offord's shaft, is getting larger, and looks more promising as we extend east; the elvan is nearly out of the end, and is giving place to congenial looking killas. The rise in the 110 east, on perpendicular branch, is poor at present. The stopes in back and bottom of the 100, at Walker's shaft, are worth 7l. per fm. for tin. The 90, east of Walker's, is without material alteration since last reported. The winze in bottom of the said level is worth 7l. per fathom. We have not taken down the lode in back of the 90, west of Fielding's shaft, during the past week, but shall commence to do so in the early part of the next week.

GWYDYR PARK.—W. Smyth, June 17: There is no particular change in Gwyn Llifion adit since last report; the end is still very hard and wet. I am pushing on the driving as fast as possible. It has been almost continually raining during the past week, consequently the water has not gone down anything in the shaft or old workings.

HALLENBEAGLE.—W. Bawden, June 16: Pinniger's sumpmen are engaged cutting ground to prepare to sink below the 67. In the 56, east of Pinniger's shaft, on north lode, the lode is not so productive as it has been, but I think it will improve shortly. In the 56, west of said shaft, on south lode, the lode is small, containing spots of copper ore. In the 56, east of the above shaft, east of cross-cut, on south lode, the lode is at present unsettled. The 40, east of King's, is without change since last reported. At Reed's shaft, sinking below the 53, the lode is 15 in. wide, worth 15l. per fm. for the length of shaft. In the 53, east of said shaft, the lode is 18 in. wide, worth 4l. per fm. In the 53 west the lode is 9 in. wide, worth 3l. per fm. We have been enabled in the past week to resume the sinking of the winze east and west of Reed's shaft; the lodes are about the same value as last reported. At Roberts's shaft, sinking below the 40, no lode has been taken down for the past week. In the 43, west of Roberts's shaft, the lode at present is poor. In the 43, east of Bawden's shaft, the lode is containing spots of copper ore. The 33, west of Roberts's shaft, is without change. In the 43 fathom level, east and west of cross-course, on Oats's lode, the lode is small and poor.

HAWKMOOR.—J. Richards, June 19: The stopes in back of the 30, east of the eastern engine-shaft, produces 1 ton of copper ore per fm.—West Hawkmoor: No. 4 lode in the stopes in back of the adit level, west of the main cross-course, is 2 ft. wide, composed of capel, quartz, and good stones of tin ore occasionally. The branch on which we are driving east is small.

HINGSTON DOWN CONSOLS.—T. Richards, June 20: Bailey's engine-shaft, sinking below the 130, contains more capel, mundic, &c., and is not for the present so productive; the lode, however, continues very large and promising; present value, 20l. per fm.; the loose and most productive part of the lode appears to be inclining more to the eastward, which will be proved by driving the next level—the 140. The stopes in back and bottom of the 130, east of Bailey's engine-shaft, are worth 65l. per fm. The stopes west of Bailey's, in back of the 130, are worth 45l. per fm. The stopes in back and bottom of the 120 are worth on the average 30l. per fm.

LADY BERTHA.—Capts. Metherell and Harpur, June 21: In the 41, driving east, the lode is about 4 ft. wide, composed of capel, peach, mundic, and some stones of ore. In the 30, driving east, we are still driving by the side of the lode, and carrying a leader on the south part about 6 in. wide, very good. The stope in bottom of the same level is worth about 12l. per fathom. The water is now about 3 fms. under the bottom of the 41, and the engine doing well. Nothing new in tribute.

LEEDS AND ST. AUBYN.—J. Curtis, June 16: The following bargains are set to-day:—The 20 to drive east of Harvey's shaft, by six men, at 20s. per fm., and 3s. in 1l. tribute. The 10 to drive east of Harvey's shaft, by six men, at 20s. per fathom, and 5s. in 1l. tribute. The adit level to clear east of Harvey's shaft, by two men, at 10s. per fm. In the tribute department we have four men at 4s. in 1l.; four men at 5s. in 1l.; eight men at 6s. 8d. in 1l.; six men at 8s. in 1l.; six men at 9s. in 1l.; four men at 11s. in 1l.; and two men at 12s. in 1l. At no time has the mine ever looked better than at the present.

MAUDLIN.—J. Tregay, June 16: Old Mine: The lode in the 80 east end is looking promising lor the production of copper ore; in this level west the lode is producing occasional stones of copper ore.—West Mine: In the 20 west end the lode is producing good stones of ore.

MINERA UNION.—J. T. Harris, June 21: Douglas's Shaft: The sinking is progressing satisfactorily, and the ground the same as last reported.—Brabner's Shaft: The lode in the 80 yard level north is about 1½ ft. wide, of a very promising character, and containing a little lead. The ground in the cross-cut towards the Red vein is the same as last reported. The pitch in back of this level is worth 10 cwts. of lead per fm. The ground in the big cross-cut consists of limestone.—Williams's Shaft: The lode in bottom of the winze, north of shaft, at the 60 yard level, is worth 15 cwts. of lead per fm.

NEW BIRCH TOR AND VITIFER CONSOLS.—W. Skewis, R. Trevarthen, June 21: Hambley's Shaft, North Lode: The lode in the 48 east is worth 5l. per fathom. The lode in the 36 east is worth 5l. per fm. The cutting down of the new shaft from the 12 to the 24 will be completed by the end of next week, when the driving of the 24 will be resumed. There is no alteration in the 12 since last reported.

NEW CROW HILL.—W. Trelease, June 19: There is no change in the 70 east since last week; the men employed here have for the greater part of the past week been engaged in re-timbering the level. We have no alteration to notice in either of the stopes in back of the 55, No. 1 being still worth in places 35l. per fathom; No. 2, 25l. per fathom; and No. 3, 8l. to 10l. per fathom. No change at Louisa's shaft. The 55 end, east of engine-shaft, is also without change.

NEW EAST BIRCH TOR AND VITIFER CONSOLS.—Wm. Skewis, R. Trevarthen, June 21: Goppy's shaft is being cleared up with all speed, and we calculate to communicate this with the deep adit by the end of next week, and then to clear the adit as quickly as circumstances will permit to Prideaux's shaft, which will admit of the works being carried on more extensively.

NEW TRELAWNY.—E. H. Dingle, June 21: The lode in the adit level, going west, has a very improved appearance; it is 1 ft. 3 in. wide, and underlies north 6 in. in 1 fm., composed of gossan, prian, quartz, mundic, and is letting out water. I anticipate a further improvement as we near the elvan course; the main shaft is completed 14 fms. from surface, the lode in same being 2½ ft. wide, composed of gossan, quartz, prian, large quantities of mundic, with a portion of silver; this is also letting out water, highly mineralised; it underlies south 1 ft. 6 in. in a fathom, and is a lode of great promise, and of such a nature at the present depth as to insure success. Good progress is made in sinking, at the rate of from 10 to 12 ft. per week, and we hope to reach the depth of the adit level, 16 fms., in a week or 10 days from this time, when we intend to drive on the course of the lode.

NEW TRELEIGH.—S. Michell, June 21: There is no change to notice in the 80 fm. level, west of the cross-course. We have discovered several good branches of ore in the cross-cut south, at the 70 fm. level; the ore is of good quality. The rise in the back of this level is communicated with the winze sinking under the 60, and I intend setting tribute pitches here on Saturday next. The lode in the 60 end is looking a little better than it did a few days ago; the lode has been divided by a horse of killas, which has now disappeared, and the lode is become more settled, and yielding at the present time about 1½ ton of ore per fathom. The new shaft, sinking below the 51 fm. level, is down about 2 fms. below this level, in which the lode is large, but has not been taken down for the last 5 feet, consequently I cannot say what its real value is, but do not calculate it to be worth less than 2 tons of ore per fathom. The lode in the 51 fm. level, driving west, continues to look well, worth from 15l. to 20l. per fathom. We have commenced rising in the back of this level, which will run up pretty speedily, and ventilate the level and facilitate the stoping. The 51 fm. level, driving east, is hardly looking so well; a large capel course came in contact with the lode, rendering it smaller, but I fancy, from what I could see last evening, there is an alteration taking place for the better, and there is no doubt of the lode resuming its former productiveness.

NEW WHEAL TOWAN.—Richard Pryor, June 20: There has no particular change taken place worthy of notice during the past week, with the exception of meeting with the lode to the west of the cross-course, but it will take some little time to ascertain its size and value.

NORTH CHIVERTON.—Wm. Hancock, June 19: We have cleared the 70 fm. level, west of old sump-shaft, home very near to Mew's, in a fine-looking lode, and have to-day set a pitch in the back of it, at 8l. per ton for lead. In the 70 east, on the south part, the lode is 2½ feet wide, and improving for blende and lead. In the winze sinking under the 60 east the lode is 3 feet wide, producing 2½ tons of blende per fathom, and good work for lead. No. 1 stope, in the back of this level, produces 3 tons of blende per fathom, and 2 cwts. of lead. Owing to the price of blende having receded so much, we have for the present suspended all the other stopes.—New Engine-Shaft: The different points that are being operated on here remain much the same as when last reported.

NORTH DOLCOATH.—Jas. Paull, June 20: In the engine-shaft we continue sinking on the north part of the lode, where there is a well-defined branch on the north or hanging-wall, about 1 ft. wide; its composition principally consists of quartz, chlorite, and mundic, interspersed with yellow copper ore. The other part of the lode sinking on is mixed with a little of the clay-slate, and occasionally it produces rich stones of ore. Altogether, the mine presents a very favourable appearance.

NORTH DOWNS.—J. Grenfell, June 19: Setting Report: A cross-cut to drive south of King's shaft, by six men, at 4l. 10s. per fathom; the appearance of the ground in this cross-cut for mineral cannot be surpassed, and should the lode be met with in this channel of ground it cannot, in our opinion, fail in making a course of ore. A stope in the back of this level, on the south lode, by four men, at 4l. per fathom, producing 1 ton of ore per fathom. The 45 fm. level to drive east of the above stope, by three men and one boy, at 4l. 10s. per fathom, also producing 1 ton of ore per fathom. Bennett's shaft is down to the 70 fm. level, and we have set the cross-cut to drive north, by six men, at 12l. per fathom; there cannot be more than from 2 to 3 fms. to drive to cut the lode, and everything that can be done will be to cut it this month. Also six tribute pitches, by ten men and three boys, at 13s. 4d. in 1l.

NORTH PHŒNIX.—J. Seccombe, J. Martin, June 15: Setting Report: The 160 to drive west in the killas, on the south side of lode, by six men, at 16l. per fathom; the ground continues to be a mixture of killas, quartz, and capel, containing mundic and spots of copper ores. The 140 to drive west in the killas, on the south side of lode, by six men, at 8l. per fm.; there is no alteration in the ground, which is favourable for driving in, and congenial for mineral; in cutting into the lode at this level we have broken some fine stones of yellow and black copper ores, upon which we shall open a little in the bottom of the level.

NORTH ROSKEAR.—J. Vivian and Son, R. Angove, F. Hosking, June 20: Having had to put in two new pieces of main rod in Doctor's engine-shaft, the water rose above the 205, so that we have been prevented from driving the 216 west, as we anticipated doing. We are now making good progress in draining the water, which is beginning to abate. The series of obstacles which have prevented our draining the 216, and commencing the driving of it, have been great disappointments to us, but we do not think such delays will occur again. The water has also been in in the 205, west of the winze near Pearce's shaft, and we are now draining it out, preparatory to resuming the driving of this level under the copper ground of Pearce's shaft. In the 130, east of Pressure shaft, on the main lode, the lode is 3½ ft. wide, composed of quartz, having good yellow copper ore scattered throughout it, its appearance being favourable for improvement. In the winze sinking from the 120 to the last-named level the lode is also composed of quartz and yellow copper ore, and presents a favourable appearance. In the 140, west of cross-cut, from Wheal Crofty engine-shaft, the lode is in two branches, which will probably form a junction in going on, and lead to an improvement. The tin stopes are producing their average quality tinstone. There is nothing new in the copper pitches. We sampled to-day 111 tons of copper ore, of about the same quality as usual.

NORTH SHEPHERDS.—H. Bennetts, June 20: The character of the lode in the 40 fm. level end, west of engine-shaft, is much improved since last reported; the lode is 20 in. wide, yielding some rich stones of silver lead ore. At Rye's the men are making good progress in cutting down the said shaft, and in a week from this time the shaft will be cut down and secured to the 30 fm. level, after which we shall commence to bring down the skip-road and draw from the 30. The lode in the 20 fm. level end, west of Rye's shaft, is 20 in. wide. The lode in this end is improved within the last two days, and yielding a little lead, which we are saving for dressing. Our last cargo of coals is of a superior quality; our engine is working well, at five strokes per minute, to keep the water.

NORTH TRESKERBY.—R. Pryor, J. Tregoning, T. Jenkin, June 21: The part of the lode that we are carrying in the 120, east of Tresidder's shaft, is worth 1 ton of copper ore per fm.; we intend driving 8 or 9 ft. further, and then cut through the whole of the lode, so as to ascertain its size and value, which, we believe, will drain the water from the level above. The lode in this level, west of shaft, is 4 ft. wide, producing stones of ore, with a good appearance. The lode in the 110, east of shaft, is producing 2 tons of ore per fm., and likely to further improve. The lode in this level, west of shaft, is looking better and now producing 1 ton of ore per fm. The lode in the rise in the back of the 90, east of shaft, is producing 1½ ton of ore per fm. The lode in the winze sinking below the 80, and east of shaft, is producing 3 tons of ore per fm. Our ends, on the whole, are looking more promising than they did at our last report.

NORTH WHEAL BASSET.—William Roberts, June 19: I beg to hand you a report of this mine, by first giving a list of our last tutwork setting, and then by making a few remarks on the points in operation. Sinking Grace's shaft under the 122, by nine men, at 40*l.* per fm. Driving the 122 east, on the main lode, by two men, at 4*l.* 10*s.* per fm. Driving the 122 west, on the main lode, by two men, at 3*l.* per fm. Driving the 122 cross-cut south, by four men, at 8*l.* per fm. Stoping in the 112 west, on the main lode, by two men, at 10*l.* per solid fathom. Driving the 52 west, on the main lode, by four men, at 5*l.* per fathom. Driving the 42 west, on the main lode, by two men, at 3*l.* per fm. Sinking the winze in the 52 west, on the main lode, by four men, at 5*l.* per fm. Rising in the 52 east, on the north lode, by two men, at 12*l.* per fm. Driving the 42 east, on the north lode, by two men, at 5*l.* per fm. Sinking the winze in the 42 west, on the north lode, by four men, at 8*l.* 10*s.* per fm. Sinking the winze in the 32 west, on the north lode, by two men, at 9*l.* per fm.—Main Lode: Grace's engine-shaft is 10 fms. 1 ft. below the 122, and is now in favourable ground for sinking; we hope and expect to get it sufficiently deep to commence driving a cross-cut south towards the lode by next setting-day—four weeks hence. The 122 is extended 40 fms. west; in the present end the lode is 5 ft. wide, all stamping work for tin. The same level is driven 13 fms. east, where the lode is 4 ft. wide, composed of spar, iron, and a little malleable copper and tin—a very promising lode, such as will, I believe, improve in depth. The 122 cross-cut is only 5 fms. from shaft, or 6 ft. south of the south part of the lode. The stope in the 112 is 60 fms. west of shaft, or home to within 2 fathoms of the present end, where the lode is 6 ft. wide, yielding low quality tinstuff. In the 52 fm. level, 22 fms. west of the western shaft, the lode for the last 3 fms. driven has been 4 ft. wide, worth, according to samples taken, and at the present price of tin, 15*l.* per fm., leaving good tin ground in the back and bottom of the level. In the present end the lode maintains its size, and is worth 10*l.* per fm. In the 42 fm. level, 10 fms. west of shaft, the lode is 1 ft. wide, producing a little tin, not enough to value. As this end is only 12 fms. behind the 52 west, an improvement is expected. In the 52 fm. level, 6 fms. east of the western shaft, on the north part, a winze is being sunk (down 6 ft.); in it the lode is 1 ft. wide, producing stones of copper ore.—North Lode: In the rise in the back of the 52, east of cross-cut (up 12 ft.); the lode is 1 ft. wide, producing stones of good ore. The 42 is driven 50 fms. east of cross-cut; in the present end the lode is small and unproductive. In the winze sinking under the 42 (down 2 fms.), the lode for the first 9 ft. produced 2 tons of ore per fm.; in the last 3 ft. sunk, and in the bottom of the winze, the lode is 1½ wide, yielding good stones of ore, and is likely to improve. The winze in the 32 west is 8½ fms. below the level; in it the lode is 1 ft. wide, producing stones of ore. In addition to the above-named tutwork bargains there are 15 men working six pitches, at tributes from 10*s.* to 13*s.* 4*d.* in 1*l.* We calculate to sample on Wednesday, the 27th instant, 45 tons of copper ore, and hope to get prepared for sale, five weeks hence, about 4 tons of tin. I would here remark that the tutwork bargains on the copper lode have fallen off a little in value, but this, I think, will only prove temporary; then, with the improvement for tin in the 52 west, and Grace's shaft being nearly down for another level, make the prospects of the mine altogether rather better than they were two months ago.

OLD GUNNISLAKE.—W. G. Gard, J. Phillips, June 21: The lode in the 21, on the south lode, west of Michael's shaft, is much easier for progress, but not yielding so much ore; a change has taken place in the character of the lode, which is now similar to that portion on it eastward which produced such very ore. We hope to have the plunger fixed in the 61, at Michael's shaft, very soon. We have taken down the lode at Parker's shaft and find it 5 feet wide, composed of splendid gossan from wall to wall. In the 31 fm. level the lode is intercected by a cross-course.

PEDN-AN-DREA UNITED.—Wm. Tregay, J. Thomas, June 16: The lode in bottom of the sump-shaft produces stones of tin; ground favourable for sinking. The 130 east, on Martin's and engine lodes, is worth 8*l.* per fm. The 130 east, on Skimmer's south lode, is worth 10*l.* per fathom. The 130 west, on Skimmer's south lode, is worth 15*l.* per fm. The 130 west, on Martin's lode, is worth 7*l.* per fathom. The 120 west, on Martin's, is worth 10*l.* per fathom. The 100, east of Bragg's, on Skimmer's south lode, is worth 10*l.* per fathom. In the stope in the bottom of this level the lode is worth 8*l.* per fathom. In the 100, east of Bragg's north cross-cut, we have intersected a lode, promising for improvement on getting beyond its influence; we cannot yet tell whether or not this is Skimmer's main lode; we are driving east on its course at 2*l.* per fm.—Cobbler's: The 110 east is worth 5*l.* per fm. The 110 west is unproductive. In the stope in bottom of the 110, at Cobbler's shaft, the lode is worth 18*l.* per fm. The 90 east is worth 5*l.* per fm. In the 90 north we have intersected another copper lode, producing good stones of copper ore, and letting out much water, but we are not yet through it. In the 68 east winze the lode is worth 8*l.* per fm.—Cardozo's: The 20 west is worth 6*l.* per fm. We sold to-day at Carvedras 9 tons 0 cwt. 3 qrs. 25 lbs. of black tin for 408*l.* 2*s.*

PENHALE AND LOMAX.—John Kitto, James Brown, Charles Rosewarne, June 21: We have commenced to drop the lift to the 40 fathom level. Our men are working night and day. The roof of the whim engine-house will be on to-day, the bob will soon be in its place, and no time will be lost in getting this engine to work, together with the steam capstan, which will greatly facilitate our operations underground. All the surface operations are progressing satisfactorily, and rapidly approaching completion.

REDMOOR.—T. Taylor, June 19: During the past month in driving to get through and out of the influence of the cross-course, which is very large, and composed of a deal of mundic, prian, &c., we intersected another branch of mundic, containing a small branch of rich silver lead ore; this branch is embedded in very pretty strata of marly clay-slate and prian, intermixed with white iron, &c. We are now driving south-east and north-west, four men in each end, on its course; the ground is moderately easy, although not so soft as when driving through the cross-course, but are still obliged to use timber. I must say the prospects are encouraging, and I hope something worthy of the patience of the shareholders will be found at this level.

ROARING WATER.—H. Thomas, June 59: For the last two or three days we have not been able to do much in Gillman's engine-shaft, in consequence of the deadness of the air; a machine is nearly ready to put in, that will be worked by the engine, which will supply a large amount of ventilation. The ground is much the same as for some time past—beautiful killas and branches of spar, gossan, &c. In Grady's engine-shaft we have taken down a part of the lode, which has produced good saving work; the rich grey ore appears to be dipping east, and now nearly out of the shaft; and there is a branch of good yellow ore coming in the shaft from the west—a strong, kindly lode for the depth.

ROSECLIFFE AND TOLCARNE.—R. Pryor, J. Phillips, June 20: In cutting in south for bearers and cestern, about 2 fms. below the 30, we have again met with No. 1 lode, from which we have broken some fine stones of silver-lead; this shows clearly we are not quite deep enough to meet with the rich deposits of lead met with in the eastern part of the mine, the same having a westerly dip. In the 30 cross-cut, north of the engine-shaft, to all appearance we have met with a part of No. 3 lode, but the same being so near to the great cross-couse, it will take some few days to ascertain its size and character; the ground is favourable for driving, and the end letting out a quantity of water, which is a good indication. Other places without change to notice since our last report.

ROSEWALL HILL AND RANSOM UNITED.—R. J. Treweeke, June 29: No alteration in the 140 end, east of Ransom, since last reported. The lode in the 120 east is poor. The lode in the 110 east is worth 5*l.* per fathom. The lode in the 100 east is worth 10*l.* per fathom; the lode in a winze under this level, about 12 fathoms behind the present end, is worth 8*l.* per fathom. The lode in the 90 east is worth 10*l.* per fathom. Three stopes in back of the 90, worth on an average 10*l.* per fathom. The lode in the stopes in bottom of the 90, and back of the 100, is worth on an average 15*l.* per fathom. The lode in the 85 east is worth 12*l.* per fathom; and in the stopes over this level the lode is worth 10*l.* per fathom. The lode in the 80 is small, and at present not of much value.—Engine-shaft: The sumpmen are making good progress in sinking; the lode in bottom of the 170, east of said shaft, is worth 30*l.* per fathom.

ROSEWARNE CONSOLS.—J. Nancarrow, R. Knuckey, June 19: The ground in Ellen's shaft is harder; no lode taken down since last report. The lode in the 90 east is larger, and has a better appearance than last week. The 80 east, on the north part, yields a little ore. The stope in the back of the 80 is worth 5*l.* per fathom. The 70 east, on the north part, is worth 4*l.* per fathom. The stope in the back of the 70 is worked through to the 60. The lode in the 20 west is rather small. The lode in the 80, west of sump, yields good stones of ore, and is likely soon to become valuable. The lode in the 70 west is increasing in size, and has a good appearance.

ROSEWARNE UNITED.—T. Richards and Son, June 21: The lode in the 80, west of the engine-shaft, contains good stones of copper ore. The lode in the 70, west of the engine-shaft, is worth 12*l.* per fathom for copper ore. The winze below the 60 has been holed to the rise in the back of the 70, and has laid open a good piece of ore ground, worth from 15*l.* to 20*l.* per fathom from the 60 to the 70. The lode in the 60 west contains a little good copper ore. In the 30 cross-cut south we have cut a branch about 6 in. wide, composed of quartz and mundic, and letting out pretty much water. There is no further change in any other part of the mine.

SILVER VEIN.—J. Seccombe, E. Burn, June 16: The engine-shaft is now down 14 fms. 1 ft. 3 in. below the 50; the ground in the bottom, although harder than it has been, is still of a very favourable and congenial nature; the part of the lode in it is larger, and thickly impregnated with mundic, yielding occasional stones of fahlerz. We have let the men a contract (18*l.*) to fix bearers of cistern, standing-lift, and a larger sinking-lift, all of which, we hope, will be completed by the end of next week, when the sinking will again be proceeded with.

SORTRIDGE CONSOLS.—R. Jackson, June 21: In the 122 cross-cut, north of Hitchins's engine-shaft, the main lode has been intersected; it is 3 feet wide, composed of spar, capel, mundic, and good stones of yellow copper ore. We have commenced to sink Hitchins's engine-shaft below the 122; the ground is favourable, and good progress has been made. We shall push on the shaft with all possible speed. The tribute pitches are looking much the same as for some time.

SOUTH CONDURROW.—J. Vivian and Son, Wm. Williams, June 16: West Basset Lode: In the 51, east of King's shaft, we have intersected the cross-course, and struck the lode to the east of it, where it has been displaced about 6 ft. to the south, but we have not yet cut through the lode to the south wall; it is a large, strong lode, presenting good indications for copper. In the 51 west the lode is in two parts; the main part is standing south of the end, but which will probably again form a junction with the south part shortly; should it not do so we shall drive south and intersect it. In the 40 west the lode is a little disordered, but is producing a little black copper ore, and seems likely to improve. In the 30 west the lode is increasing in size, composed of chlorite, with a great deal of mundic and some black copper ore, having altogether a very promising appearance. In the winze sinking from the 30 to the 40 we are passing through some nice branches of copper ore, and the lode is easy for stoping. We have about 2 fms. more to sink to communicate this winze to the 40, when the ore ground will be available for stoping. We have a little more ground to cut down in Vivian's shaft to complete it to the 20, when we shall resume driving the 20 west and the sinking of the shaft below. In the 20, east of King's shaft, the lode is still passing through a hard neck of rock, and consequently small.—Middle Lode: In the 20, east of cross-cut, east of engine-shaft, the lode is 2 ft. wide, and has recently improved in character and value, being now worth for tin sufficient to pay for driving. In the 10 east the lode is large, and producing tin and copper, worth about 5*l.* per fm. There is no alteration to remark on in the stopes. We hall sample about 80 tons of copper ore on Wednesday next.

SOUTH DARREN.—John Boundy, June 16: Since my report of last week we have taken down part of the lode in the 50 west, and I am pleased to say the lode at this point presents a very promising appearance; it is now 2½ ft. wide, composed of mineralised killas, spar, carbonate of lime, copper, and lead ore, and water flowing very strongly from the end; present value for mineral 10*l.* per fathom. No lode taken down in the 40 west since last report. The lode in the 30 west is 2 feet wide, yielding saving work, and presenting a promising appearance for improvement. No change of importance has taken place in any other part of the mine. Surface operations going on as usual.

SOUTH DOLCOATH.—Wm. Roberts, June 20: In the 56 cross-cut, driving north, the lode is intersected and cut into1 foot, without yet touching the north wall; it is, so far as seen, chiefly composed of iron, prian, and spar, which will probably improve for ore as we drive west to get out of the influence of the cross-course. In the 56 east the lode is nearly 1 ft. wide, producing stones of ore. In the 46 east the lode is small and unproductive; in the same level west the lode is 1 ft. wide, producing stones of good ore. The stopes in the back of the 56 are much the same as last reported.

SOUTH EXMOUTH.—J. P. Nicholls, G. Maunder, June 20: The lode in the 90 north is 2 feet wide, consisting of barytes and quartz. The lode in the 75 north is 1½ foot wide, composed of white iron, quartz, and mundic. The lode in the winze being sunk in bottom of this level will yield from 8 to 10 cwts. of lead per fathom. In driving the cross-cut east from this level we have not as yet intersected the east lode. The part of the lode carried in the 60 north consists of white iron, quartz, and mundic, and yielding occasional squats of lead, presenting kindly indications.

SOUTH HERODSFOOT.—W. Goldsworthy, June 20: The ground in the 70 north is harder for driving; the lode is 1 ft. wide, composed of spar and capels, and letting out a little water. No alteration in the south end to notice.

SOUTH LOVELL.—W. Chappell, June 16: Since my last report the following work has been performed:—The 12 has been driven west 10 fms. 5 ft. 2 in., where the lode has varied in size from 1 to 2 ft. wide, composed of chlorine, quartz, mundic, blende, and good stones of tin for the whole distance, with good prospects of further improvement as the end gets back nearer the cross-course, which in this locality generally increases the value of the lode, and to the west of which the former workers had from adit to surface rich courses of tin; here the lode has been producing rich stones of tin for the last 20 fms. driving, and in places worth from 10*l.* to 15*l.* per fm. In the back of the same level we have stoped the lode 2 fms. 4 ft. 6 in., and put a rise 1 fm. 2 ft. 6 in., where the lode is 15 in. wide, producing saving work for tin, but was compelled to suspend the stoping and rising for want of ventilation until the perpendicular shaft is sunk to the 12, which would enable us to set the back on tribute, and cross-cut a lode standing about 5 fms. north of perpendicular shaft, and also facilitate the discharge of stuff from the 12 fm. level end west, as well as thoroughly ventilate this part of the mine. We have cross-cut north at the same level 1 fm. 0 ft. 2 in. towards the bottom of perpendicular shaft, which is sunk 6 fms. below the adit level, and suspended on account of the increase of water being too much to be kept by manual labour. We have driven the 10, west of flat-rod shaft, 7 fms. 3 ft.; the lode is 2 ft. wide, composed of prian, peach, and good stones of tin. We have cleared and secured the cross-cut north at the adit level 10 fms., but owing to the immense quantity of surface water we are compelled to suspend operations.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, June 16: We are pushing down the shaft, and find in the south side of it granite, to the north of which there is elvan, with branches of spar and prian, containing a little tin and mundic for 2 ft. wide. We propose to sink 15 fms. before we drive.

SOUTH WHEAL TOLGUS.—June 20: Youren's Lode: The lode in the rise over the back of the 150 west is 15 in. wide, consisting of spar, flookan, and stones of good ore. In the winze sinking below the 140 west the lode is 15 in. wide, composed of spar, flookan, and stones of ore, similar to the lode in the rise over the 150, and to which we hope to communicate in a week from this date.—South Lode: In the 150, east of Michell's engine-shaft, the lode is 2 feet wide, worth for tin 10*l.* per fathom—a strong, promising lode; price for driving 9*l.* In the rise over the 130 east our men to-night have made a small hole through to the 120; we hope by the end of this week to beat through the ground to the 120, and to clear the stuff. In the ground in the 100 cross-cut north the end is driving in stiff killas, much stiffer than we calculated upon.

ST. IVES WHEAL ALLEN.—J. Nancarrow, J. Daniel, June 20: The lode in Roderick's engine-shaft is improved, and yields good stones of tin; here we appear to be getting into tin ground, which is very important, as this is the deepest point yet reached on this lode. The lode in the 50 end is worth 4*l.* per fathom. The stope in the 50 is worth 3*l.* per fathom. The lode in the 40 east is more settled; it contains a little tin, and we expect shortly to get into valuable ground. The stope in the 40 is worth 4*l.* per fathom.

ST. JUST UNITED.—R. Pryor, R. Wearne, W. White, June 19: Saveall's Lode: We have set the shaft to sink below the 76, by six men, at 10*l.* per fm. The lode in the 76, west of shaft, has within the last few days improved, it being now worth 11*l.* per fm., with a good appearance.—Buck Lode: In the 62, east of shaft, the lode is worth 4*l.* per fm.—Owl Lode: The lode in the 20 north is worth 10*l.* per fm. In the 10 north the lode has also improved, and worth 7*l.* per fm. The lode in the adit north is worth 11*l.* per fm. The lode in the winze sinking below this level is worth 9*l.* per fm. No change of importance in any other part of the mine since last reported on.

TEES HEAD AND CROSSGILL HEAD.—J. Peart, June 16: We still keep raising a little ore going south. If anything would cross the vein we might soon have a good mine, as we are working up into the choice ground; at least it is so considered by everyone who knows anything about the place. I have a good opinion that we shall find a good mine between where we are and the shop, as there appears to be strength crossing the vein in that ground.

TIN HILL.—W. H. Willcock, June 21: We have not yet got through the hard floor in sinking the new engine-shaft on the western part of the sett, as explained in my former report: having a competent pare of men in the shaft we make steady progress, hoping soon to have a change of ground. The other works of the mine are continuing much the same as when last reported on.

TRENCROM.—W. Arthur, June 21: The lode in the 110, east of Hollow's shaft, is 10 inches wide, with stones of tin. The lode in the 100, east of Hollow's shaft, is 1 foot wide, worth 3*l.* 10*s.* per fathom. The lode in the 90, east of Hollow's shaft, upon the north part, is 12 inches wide, producing a little tin. The lode in the 80, east of Hollow's shaft, is 12 inches wide, yielding a little tin. We are cutting down Dawe's shaft with all possible speed below the 60. The lode in the winze sinking below the 50, west of Dawe's shaft, is 12 in. wide, worth 2*l.* per fathom. The lode in the 50, east of Dawe's shaft, is 18 in. wide, worth 4*l.* per fathom. The lode in the 40, east of Dawe's shaft, on the south part, is 16 inches wide, worth 3*l.* per fathom.

TREREW WHEAL ROSE.—J. Middleton, W. Billing, June 21: We have nothing new to speak of. The layer of stone in the quarry still continues good.

TREWEATHA.—T. Foot, John Scoble, June 19: The lode in the 50 south is 3½ ft. wide, and will yield about 5 cwts. of lead per fathom. We have commenced driving the 50 north; the lode in this end is 3½ ft. wide, producing a little lead, but not of much value, but we calculate on an improvement in the lode shortly from its appearance. We have commenced clearing the 40 north, and have laid down the tramroad near the point where the level came together. The water is very much fallen off at this level, which will be a great advantage in clearing. We are making good progress in clearing the 40 south; this level is nearly dry. The stope in the back of this level will produce 5 cwts. of lead per fathom. At the 30 south the lode is 3 ft. wide, producing 4 cwts. of lead per fathom, with good ground for progress. The lode in the winze sinking in the bottom of the 30 north is 2 ft. wide, producing 3 cwts. of lead per fathom. The lode in the stope in the back of the 30 fm. level south is worth 4 cwts. of lead per fathom. The lode in the 20 south is not looking so well, being 2 ft. wide, and producing 5 cwts. of lead ore per fm.; good progress is being made in this end, as the ground is easy for driving. The lode in the 33, north of footway shaft, is 2 ft. wide, producing a little lead, put not of any value at present. The tribute pitches just the same as for some time past. We have completed the tripplat in the 30, also finished laying down the tramroad at this level, and shall commence tramming this afternoon. The engines and all the machinery are working well, and the water at each shaft greatly fallen off.

VIGRA AND CLOGAU.—J. Remfry, June 21: At the latter end of last week we blasted some fine visible gold from the bottom of No. 1 shaft, No. 2 mine, but since Monday last we have been so overpowered by the increase of water, caused by the heavy rains, that we have done little or no work in prosecuting the sinking. The few shots we were able to put in brought out gold, but it was evident that we could not reach the best places. We have gold standing in the rock, which we hope to get at as soon as the men can master the water. The lode in the east driving from No. 3 shaft is 4 ft. wide, composed of very good-looking quartz, well mineralised. The western level contains a lode very promising for good work. The east driving from No. 2 shaft is as usual, lode being large, but sparingly mineralised. The stope west from No. 2 shaft, No. 1 mine, is producing kindly looking quartz. Gold received at the office this day—22 ozs. 15 dwts.

WALKHAM AND POLDICE.—J. Lean, June 16: In the 50 west, on the copper lode, the driving this week has been in a congenial killas country, on the north side of the lode, the character of which I hope to give you next week. The winze sinking in bottom of the 38 west, on the copper lode, is producing large slabs of ore and mundic; the ore is saved for dressing. The 26 being near the lead course the lode is unsettled.

WELSH (Gold).—W. Vincent, June 21: The progress of the work in the north drivage at Cefn Coch has not shown any alteration since my last; the lode continues of the same composition—arsenical pyrites, carbonate of lime, and iron, mixed with slaty stuff. The end should now be opposite to the end of the east and west lode, but as we have not yet cut it I infer that that lode has become flatter in depth than at surface, where alone it has been seen, and the distance to be driven north to reach it will be somewhat lengthened.

WEST BASSET.—W. Roberts, June 20: All our operations are going on much as usual, bnt there is nothing new to report to you this week.

WEST SHARP TOR.—W. Richards, June 19: The part of the lode now being cut into in the 150 fm. level cross-cut contains quartz, capel, peach, mundic, and stones of rich quality copper ore; the water issues more strongly than before, which indicates a further change. There is no change to report in the No. 5 cross-cut in the 162 west; the lode in the stopes in back of the 162 yields 21*l.* worth of ore per fm.; the capel part of the lode is not cut through as yet in the 174 west; there is a little grey ore and mundic met with between the joints, and it is otherwise mineralised. There is no change as yet in the other points.

— Setting for July, set June 16: The cross-cut has been set to drive south in the 150 fm. level, west of Morris's shaft, as directed by the agent, by six men, stented the month, or cut through the lode, at 22*l.* per fm. The No. 5 cross-cut to drive north in the 162, west of Morris's shaft, as directed by the agent, by four men, stented the month, or cut through the lode, at 24*l.* per fm. The back of the 162 to stope west of No. 4 cross-cut, as directed by the agent, by four men, stented the month, at 9*l.* 10*s.* per fm. The back of the 162 to stope east of No. 4 cross-cut, as directed by the agent, by six men, stented the month, at 12*l.* 10*s.* per fathom. The 174 to drive west of the cross-cut, on the south part of the lode, as directed by the agent, by four men, stented the month, at 14*l.* per fm. The 174 to drive east of the cross-cut, on the south part of the lode, as directed by he agent, by two men, stented the month, at 11*l.* per fathom. The cross-cut to drive south in the 174, west of Morris's shaft, as directed by the agent, by six men, stented the month, or cut through the capel part of the lode, at 28*l.* per fm.

WEST WHEAL TOLGUS.—June 20: South Lode: Taylor's engine-shaftmen are at present cutting ground in the 85 for tip-plat, and for tramroad to bring the wagon to the plat. The lode in the 85 west is 1 foot wide, consisting of spar and stones of ore, and letting out more water than usual. We think this will prove to be the leading part. In the 85 east, the part of the lode that is being carried is 4 feet wide, producing 3 tons of ore per fathom, worth from 11*l.* to 12*l.* per fathom; price for driving, 8*l.* per fathom. In the 75 east the lode is 5 feet wide, producing 2 tons of ore per fathom, worth 7*l.* per fathom; price for driving, 7*l.* 7*s.* per fathom. The lode in the 75 west is 4 feet wide, producing 2 tons of ore per fathom, worth 7*l.* 10*s.* per fathom; price for driving, 6*l.* per fathom. In the sump-winze, sinking below the 75, the part of the lode that is being carried is 2 feet wide, producing 1 ton of ore per fathom, worth 3*l.* 10*s.*; price for sinking, 15*l.* per fathom. The lode in the winze sinking in the bottom of the 75 west is 3½ feet wide, producing 2 tons of ore per fathom, worth 8*l.* per fathom; price for sinking, 12*l.* per fathom. We have three stopes over the back of the 75, east of Taylor's engine-shaft, and two stopes over the back of the 75 west, by six men in each, at an average price of 2*l.* 16*s.* per fathom, each stope yielding 3 tons of ore per fathom, worth from 11*l.* to 12*l.* per fathom. In the 65 west the lode is 3 feet wide, producing 2 tons of ore per fathom, worth 7*l.* per fathom; price for driving, 6*l.* per fathom. The stope over the back of the 65 west is producing 3 tons of ore per fathom, worth 11*l.* to 12*l.* per fathom, working by six men, at 2*l.* 5*s.* per fathom. In the rise over the 65 west the lode is about 1 foot wide, chiefly flookan. The lode in the 50 west is 1 foot wide, similar to the lode in the rise above named. We have only 3 fathoms to drive and rise to communicate.—North Lode: In the 65, east of Taylor's engine-shaft, and east of the cross-cut, the lode is 2 feet wide, and unproductive.

WHEAL AGAR.—W. Roberts, June 20: In the 110, driving west of Windstow shaft, the lode is 2 feet wide, producing low quality tinstuff. In the 100 west the lode is 1 ft. wide, at present unproductive.—Western Shaft: In the 110 east the lode is 1½ foot wide, yielding a little tin; saving work. The lode in the 100 east is 2½ feet wide, composed of spar, mundic, and stones of tin occasionally. In the 90 east, close to the present end, a rise is being put up against the winze sinking under the 70, which we expect to hole in a few days, when this part of the mine will be well ventilated; in the rise and winze the lode is 2 feet wide, producing occasional stones of copper ore, and saving work for tin.—Old Whim-shaft: In the 140, west of winze, the lode is 3 feet wide, all saving work for tin and copper ore. In the rise in back of the 120 the lode is 2 feet wide, producing occasional stones of tin. The sinking of the shaft below the 140 is going on satisfactorily.

WHEAL BULLER.—J. Ince, June 20: Stevens's shaft under the 80 is producing stamping work for tin. The 80, east of this shaft, and east of cross-course, is worth for tin 12*l.* per fm. The rise in the back of this level, on the cross-course, is worth 8*l.* per fm. The winze under the 50, east of this shaft, is worth 6*l.* per fm.—Hocking's Shaft: The 80 west, on the north tin lode, is worth 5*l.* per fathom. The 70 east is worth 5*l.* per fm. The 70 west is worth 10*l.* per fathom. The 60 west is worth 5*l.* per fm. The winze under this level is worth 18*l.* per fathom.—Buller Lode: In the 80, east of Kistle's shaft, the lode is 4 feet wide, composed of gossan, quartz, peach, and spotted with mundic and rich copper ores; the ground is soft for driving. The 40, east from Hocking's, is still hard and poor. No change in the winzes under the 28 since last reported.

WHEAL CREBOR.—J. Gifford, June 19: We are still making good progress in the sinking of Cock's shaft, and shall be ready to cross-cut at the time promised—that is, in the middle of July next. In the 108 east we are cross-cutting the lode, and in it about 3 ft., which is composed of capel, quartz, and arsenical mundic, and yielding some good stones of copper ore, although not enough to value, yet a very promising end. In the 96 and 84 east we are desuing the lode, and shall have it all taken down by Saturday next. In the cross-cut south, in the 96 west, the ground is favourable for driving. The lode in Benney's pitch, in the 96 east, is still worth 20*l.* per fm. The tribute department throughout the mine is looking much the same as usual, and the men are getting fair wages. We are getting on well with our sampling, and shall have fully 130 tons.

WHEAL EDWARD.—G. Rowe, June 16: There is no change in the appearance of the tribute department since last reported on.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, June 16: The lode in the 120 west is 3 ft. wide, of quartz, gossan, and prian, which produces a little tin, worth 5*l.* per fm. The lode in the stope above this level is worth 6*l.* per fathom. The lode in the winze sinking below the 110, west from the new shaft, is 3 feet wide, worth 7*l.* per fm. Two stopes above this level are worth 5*l.* per fm. The lode in the 100 east is 3 ft. wide, producing a little tin, but not to value. The lode in the stope below this level is worth 7*l.* per fm. The lode in the 100 west is small, but judging from the direction it is taking we are expecting an improved lode. The lode in the 90 east is 16 in. wide, producing a little tin. The lode in the stope below this level is worth 7*l.* per fm. We have placed the men to rise by the side of the lode above this level to facilitate the holing of the winze, which will open out a piece of good tinny ground. The stope above this level is worth 6*l.* per fm. Two stopes above the same level, west of shaft, are worth 5*l.* per fathom each. We have no change to report in the 90 cross-cut. At the 80 we have placed the men to sink on the rise above mentioned, also on the south side of the lode. The lode in the 80 west is 4 ft. wide, producing tinny work, worth 5*l.* per fm. The lode in the 66 east is 3 ft. wide, worth 6*l.* per fm. Two stopes below this level and one above are worth 8*l.* per fm. each. We are making good progress with the sinking of the boundary shaft.

WHEAL GRYLLS.—Edward Rogers, Edmund Rogers, June 21: In bottom of the 30, east of Grylls shaft, we have three stopes working by 18 men. No. 1 is worth 5*l.* per fm.; No. 2, 4*l.* 10*s.* per fm.; and No. 3, 5*l.* 10*s.* per fm. Our tribute pitches are yielding their usual quantity of tin.

WHEAL KITTY (Uny Lelant).—Wm. Rosewarne, June 21: North Russoe Lode: The lode in the 140 fm. level, on the north part, east of Bolitho's rise, is worth 4*l.* per fathom. The 130 fm. level endmen are at present engaged rising above this level; when this rise is communicated with the winze sinking below the 120 fm. level it will lay open some tribute ground. The lode in the 120 fm. level, west of Bolitho's rise, is worth 3*l.* per fathom. The winze sinking below the 110 fm. level, west of Bolitho's rise, is opening up tribute ground. The lode in Bolitho's rise, above the 100 fm. level, is producing a little tin.—Gowan Lode: The lode in the 60 fm. level, driving west of Rogers's shaft, on the north part of the lode, is worth 9*l.* per fathom.—South Russoe lode: We have six men preparing to sink the boundary shaft below the 10 fm. level, and shall use every exertion to get down to a deeper level, where, judging from the productiveness of this lode in the adjoining mine, we may expect to open up profitable tin ground. The tribute pitches are yielding their usual quantity of tin.

WHEAL KITTY (St. Agnes).—W. Polkinghorne, S. Davey, June 16: In the 82, driving west of Holgate's shaft, the lode is worth for tin 5*l.* per fm. In the 82, driving west of cross-cut, on south lode, no change has taken place during the past week.—Pryor's Lode: In the 65, driving west of new shaft, the lode is 2 ft. wide, and worth for tin 10*l.* per fm. In the 65, driving east of shaft, the lode is small, and not to value. In the 54, driving west of shaft, we have not taken down any lode for the last fortnight. In the 54, driving east of shaft, the lode is worth for tin 8*l.* per fathom. In the 44, driving west of shaft, the lode is worth for tin 10*l.* per fm. In the 44, driving east of shaft, the lode is worth for tin 5*l.* per fathom. Nothing worthy of remark has taken place in either of the cross-cuts.

WHEAL MARGERY.—R. James, W. Rogers, June 13: The American shaft is 11½ fms. below the 142, and is being sunk by 12 men; the lode has gradually improved since the last account; it is now 3½ ft. wide, and worth 5*l.* per fm. for copper and 20*l.* per fm. for tin. For tin the lode is of unusual promise, and there is little donbt of this becoming a tin mine; and, from the softness of the ground and size of the lode, the ground will be opened fast; an important feature also is the change in the underlie of the lode, from 4 ft. in a fathom, to being nearly perpendicular, which is a favourable indication.

WHEAL NORRIS.—J. Andrews, June 16: We are making about the usual progress in sinking Carter's shaft below the 70. The lode in the 70 east has a better appearance, and from present indications I think we are near the tin ground. The lode in the 57 east is 2 feet wide, producing a little tin, but not enough to value. In the stope in back of the 57 no lode has been taken down for the week. The new lode in the 45 end, driving east of cross-cut, is 20 in. wide, consisting of quatrz, peach, prian, fluor-spar, a quantity of mundic, and good stones of yellow copper ore.

WHEAL SPARNON.—W. Tregay, E. Chegwin, June 16: At Jardine's shaft the lode in the bottom is very large, 8 feet wide, producing good stones of copper ore, and some good quality tinstuff coming in on the footwall; we expect an improvement. In cutting down this shaft below the 110, the lode produces good stones of copper ore, and the north part of the lode saving work for tin, we expect to report its value next week. In the 60 east, Pulsford's lode, in the back of this level, is worth 12*l.* per fm. for tin. In the 60 west, Pulsford's lode, in the stope in back of this level, is worth 15*l.* per fm. for tin. In the 20 east, the lode in the rise in back of this level, is letting out much water, and producing good stones of copper ore. At the old sump we are making good progress in clearing the 60 south, on the cobalt lode, having cleared 12 fms., and have 28 fms. more to clear to reach Belfry's shaft; set to get through the run at 15*s.* per fathom. Good progress is being made in building steam-whim.

WHEAL UNY.—S. Coade, M. Rogers, June 16: There is no change of importance in the mine to report on this week. The lode in the different levels and shafts is of the same value as last week.

CARN BREA MINES.—The 36th annual report of these important mines, for 1865, has just been issued to the adventurers, and it is to be regretted that the committee of management are obliged to state that it is the most unsatisfactory one it has ever been their duty to present. Notwithstanding that ore has been sold to the extent of 32,000*l.* during the past year, yot, owing to the extraordinary depreciation in the prices of tin and copper, there has positively been a loss on the year's working of no less than 5900*l.*, although the utmost economy has been exercised in the management of the mines. The tin sold in 1865 fetched 25,700*l.*—being less by 4789*l.* than it realised in 1864; while the copper ore raised in the former year was 1431 tons, as against 1982 tons in 1864, making a further difference against the mine of 4120*l.* To meet this loss calls, as a matter of course, have had to be submitted to, and these have been made to the extent of 4000*l.* The committee are also sorry to state that since the commencement of 1866 there has been no improvement in the prospects of the mines, and that the price of black tin, which in 1865 averaged 54*l.* against 58*l.* in 1864, has now dropped to 45*l.* per ton; and, at the same time, there has also been a further fall in the standard for copper. Capt. Daw, in his extended report of the operations of the mine, states that they have a large quantity of tin ground laid open on the different lodes, but it will not pay to take it away at the present price of that mineral, and, in consequence, all the points that will not pay have been suspended. During 1865, 270,155 sacks were stamped out, which produced 12 lbs. less per 100 sacks than it was in 1864. The costs for the twelve months amounted to 35,527*l.*, or about 3000*l.* per month; the dues were 1583*l.*; management and office expenses, 596*l.*; and interest and discount, 130*l.* The copper ore for the year sold for 5956*l.*, and the tin for 25,770*l.* At the end of the year there was no less than 6958*l.* due to various merchants, in addition to a loan from the Helston Bank of 2000*l.*, against which there are 7000*l.* or 8000*l.* receivable for tin and copper. The agents have been enabled during the past year to reduce the monthly costs by upwards of 500*l.*, but the falling off in the amount of money realised from the sale of tin and copper ores makes a difference of nearly 9000*l.* This famous run of mines was for nearly 30 years among the most successful tin and copper mines ever worked in this county. Before the undertaking was brought into a dividend state about 15,000*l.* was expended, and during the 30

years ending with 1864 nearly 10,000*l.* per annum was regularly paid among the shareholders, the largest dividend having been paid in 1847, when 20,000*l.* was thus divided. With the exception of 1856, dividends were continuously paid from 1834 to 1864; and, besides the money thus divided among the shareholders out of the proceeds of the ore sold, 100,000*l.* must have been expended in the purchase of plant, machinery, &c.

CHONTALES.—It is surprising with what pertinacity attempts continue to be made to suggest erroneous views respecting the earlier results of this company, and the value of its shares. In the first place, it is repeated that when the "bear" account is closed shares will go down. The same thing was said weeks ago, but still the "bear" account is at least as far from being closed as ever. By the borrowing of large numbers of shares, which must at no distant day be returned, and the paying of heavy rates for deferring delivery, the "bears" are only postponing the evil day, and their position is weekly becoming worse from the new purchases of investors. While admitting that the new machinery may go to work at the beginning of August (as expected), it is inferred by the same parties that returns of gold are not to be looked for till "about November," but we believe that, while it is not impossible that some gold may be received in September, a good remittance may be looked for in October, and the returns after that will more than make up for those that could now be made with the old machinery. Again, it is said that "in the meantime there can be nothing to excite the market," an assertion which we have shown in former articles is not justified by facts, for by any mail the news may arrive that a most valuable discovery has been made in either of the cross-cuts at Consuelo or San Antonio, particularly the former. But we would also draw the attention of those who are so anxious to lower the price of shares, in order that they may repurchase those they have sold, to the following extract from the official letter of Mr. Syrett, the cashier at the mines, which appeared in last week's *Mining Journal*:—"I have but little doubt but, under Captain Paul's judicious management, this property will *very shortly* assume an *unrivalled* position, not only as a model of working perfection, but also for its *profitable returns*." It is quite clear, however, that those who are now so anxious to depreciate the present price are only acting on the principles of simple share market operations, which they endeavour to influence by erroneously assuming that returns of gold cannot recommence till November, and that until such occur there can be nothing "to excite the market." But, as a correspondent remarks, if one-half what is held out by Capt. Paul and others comes to pass, shares are ridiculously cheap now, even if it is a year before the results are accomplished. Holders may rest contented to wait, even for the "great rise next year," in preference to the risk of selling now, a proceeding which there is little doubt would benefit only those who want to knock down quotations, and then secure shares, which present sellers would then try in vain to repurchase at a profit.

GREAT WHEAL VOR.—In these days of depression for tin mines the position and prospects of Great Wheal Vor, as elucidated by Mr G. Noakes, F.G.S., at the meeting on Wednesday (the details of which appear in another column), cannot but be regarded as of a most cheering character. It may be mentioned that Great Wheal Vor has sold during the year ending June, 14, 1866, 845 tons 3 cwts. 2 qrs. 16 lbs. of tin, which realised 48,327*l.* 19s. 4d., and paid during the same period 3*l.* 1s. per share in dividends, or 18,019*l.* 8s. The returns have been made without forcing the mine, while the reserves are large and increasing. In 1864, Great Wheal Vor sold 43 tons of tin per month, and paid 10s. per share, in quarterly dividends, when the market price of the shares advanced to 40*l.* each. In 1866 Wheal Vor sells 70 tons per month, has enormous reserves and splendid prospects, and, notwithstanding the extremely low price of tin, paid last quarter 10s. per share, carrying forward nearly 3000*l.* surplus balance, and the shares stand at something like 18*l.* each. Since the meeting information has been received of the lode having been cut rich in the 162, west of Ivey's shaft, and west of the slide. The 174, west of Ivey's, had improved, and also that the lode had been cut in the 194, west of Metal shaft, and holed to the winze.

DOROTHEA WEST GREEN, BLUE, AND RED SLATE QUARRY.—The works at this quarry are progressing in the most satisfactory manner. The accounts for the month of May show the following amounts:—

Slate making	£155	7	1	
Tunnelling	26	0	0	
Removing rubbish	50	17	0	
Daw work and salaries	43	7	3	
Carriage, &c.	32	10	7	= £308 1 11
Value of slates made				447 11 11

The directors are about to visit this quarry, which is now being laid out in regular order for producing large returns. The make of green slates, which are in great demand, is increasing fast, many new bargains having been commenced, and a top gallery is being opened, in which slates are being made from close to the surface. These green slates have long been known as the best in Wales for colour and quality, and are constantly being sent to all parts of the kingdom.

BOILER EXPLOSION IN CORNWALL.—With regard to the Wheal Uny explosion, Messrs. Hocking and Son write, referring to the report of Mr. L. E. Fletcher (of the Manchester Association for the Preservation of Steam Boiler Explosions), appended to their letter in another column,—"We would particularly draw attention to the following paragraph in it:—'I have no hesitation in saying that all boilers with as large a flue as this one had can only be worked with steam at 40 lbs. per square inch at considerable risk,' there being unquestionably a large number of boilers working in this county under these circumstances. We may add that the boiler was fitted with two ordinary gauge cocks, a glass water gauge, and two safety valves, both set at 38 to 40 lbs. per square inch, all of which, we have every reason to believe, were in perfect working order. The feed was seen to be at its proper level by Mr. John Hocking, jun., about an hour and three-quarters before the explosion took place."

At the United Mines a boiler at Taylor's collapsed for want of sufficient feed. The injury done was unimportant.

PROFITABLE CORNISH MINING.—At West Wheal Seton meeting, last week, Mr. B. Matthews, the purser, said it was a source of gratification to meet the adventurers, as it was the twelfth anniversary since they had commenced the payments of dividends; and during that period he had had the pleasure of handing over to them at their two-monthly meetings, 72 dividends, amounting altogether to 178,000*l.* In that little spot of ground, of only nine acres in extent, ores had been raised to the extent of just 400,000*l.*, and the lord of the mine, Mr. Basset, had received no less a sum than 30,658*l.* as dues. The benefit of such a mine as West Seton could not be overrated in that locality, for they had spent no less a sum than 190,000*l.* in labour alone, and had paid merchants' bills during the same period to the extent of 80,000*l.* odd. It was a fair computation to assume that on that amount at least 10 per cent. profit had been derived, equal to 8000*l.*; and it was also reasonable to suppose that not less than 10 per cent. profit had been gained by the smelters out of the minerals sold, which would be equal to not less than 46,000*l.* more. The total amount paid up by the adventurers before the mine became a dividend-paying one, was 19,000*l.*, and the adventurers had since received a nett sum, after deducting the amount of their calls, of 159,000*l.* in the shape of dividends. He further enlarged on the incalculable benefits of such a mine as West Seton, which employs from 400 to 500 persons constantly, and expressed a hope that it might be his pleasure for many years to continue to hand over dividends to the adventurers.

MINERS' ASSOCIATION OF CORNWALL AND DEVONSHIRE.—The result of the Science and Art Department examination in mineralogy has just been made known. In the whole of the United Kingdom only seventeen persons have passed, and it is satisfactory to learn that nine of these, more than half in fact, received their instruction in the classes of the Miners' Association. One young man, Francis Oats, of St. Just, a working miner, has passed in the first class, dividing the honour with a Londoner, for only two of the candidates reached this high degree of excellence. The other names are:—Samuel Bawden, Saint Day, 3d class; Samuel J. Davey, Camborne, 3d class; Thomas B. Provis, Camborne, 3d class; John Provis, Camborne, 4th class; Thomas P. Rowe, St. Just, 4th class; William White, St. Just, 4th class; Joseph Biggs, St. Just, 5th class; James Rowe, St. Just, 5th class.—*Western Morning News.*

SILVER ORES, AND THEIR MODE OF REDUCTION.—An interesting lecture upon this subject has been delivered before the Gold Hill (Nevada) Literary and Scientific Society, by our old correspondent, Mr. W. T. RICKARD, F.C.S. The several kinds of ore were carefully described, and the processes employed for extracting the silver, as well as the principles upon which they are based, were explained. The lecture has been reprinted from the local papers in pamphlet form, and will, no doubt, be extensively read by those concerned.

We are informed that Mr. SPARGO, the well-known author of many important and valuable works on the mines of Cornwall and Devon, has left London for the Isle of Man, with a view to complete a geological map of the island. The production of this map will be looked for with great interest, not only by investors, to whom it is of vital importance, but by geologists, as an important addition to the many geological maps previously published by Mr. Spargo. We suggest to Mr. Spargo the publication of a statistical work on the mines of the island, similar to those of Cornwall and Devon.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JUNE 22, 1866.

COPPER.	£	s.	d.	£	s.	d.
Best selected ..p. ton	89	0	0	—		
Tough cake & tile „	86	0	0	—		
Burra Burra .... „	90	0	0	—		
Copper wire....p. lb.	0	11¾		—		
Do. tubes .. „	0	12¼		—		
Sheath. & bolts p. ton	91	0	0	—		
Bottoms ..... „	96	0	0	—		
Old (Exchange).. „	77	0	0	—		
BRASS.	Per lb.					
Sheets.....per lb.	9d.			—		
Wire ..... „	8¾d.			—		
Tubes ..... „	11d.			—		
Yellow Metal Sheathing .. p. lb.	8½d.					
Sheets ..... „	8⅝d.					
SPELTER.	Per ton.					
Foreign.....25	0	0		—		
To arrive 25	0	0		—		
ZINC.						
In sheets 30	0	0		—		
TIN.	Per ton.					
English blocks..... 85	0	0		—		
Do., bars (in barrels) 86	0	0		—		
Do., refined 88	0	0		—		
Banca 78	0	0		—		
Straits..... 75	0	0		—		
TIN-PLATES.*	Per box.					
IC Charcoal, 1st qua. 1	10	0		—		
IX Ditto, 1st quality 1	16	0		—		
IC Ditto, 2d quality.. 1	8	0		—		
IX Ditto, 2d quality.. 1	14	0		—		
IC Coke..... 1	4	0		—		
IX Ditto 1	10	0		—		
Canada plates, p. ton..13	10	0		—		
Ditto, at works 12	10	0		—		

IRON.	Per ton.					
Bars Welsh, in London 7	2	6	8	5	0	
Ditto, to arrive 7	0	0	7	5	0	
Nail rods 8	5	0	9	5	0	
„ Staffd. in London 8	10	0	8	17	6	
Bars ditto 8	10	0	10	0	0	
Hoops ditto 9	10	0	10	10	0	
Sheets, single.....10	0	0	11	0	0	
Pig No. 1, in Wales .. 4	5	0	4	10	0	
Refined metal, ditto.. 4	0	0	5	0	0	
Bars, common ditto.. 6	5	0	6	10	0	
Do. mrch. Tyne or Tees 7	10	0	—			
Do., railway, in Wales 6	0	0	6	5	0	
Do., Swed. in London.10	10	0	11	0	0	
To arrive 11	0	0	—			
Pig, No. 1, in Clyde.. 2	13	0	2	18	0	
Do. f.o.b. Tyne or Tees 2	9	6	—			
Do. Nos. 3, 4, f.o.b. do. 2	6	6	2	7	6	
Railway chairs 5	10	0	5	15	0	
„ spikes 11	0	0	12	0	0	
Indian Charcoal Pigs, in London, p. ton.. 7	0	0	7	10	0	
STEEL.	Per ton.					
Swed., in kegs (rolled)..13	0	0	14	0		
„ (hammered)..15	0	0	16	0	0	
Ditto, in faggots 16	0	0	16	10	0	
English, spring 19	0	0	23	0	0	
QUICKSILVER (p. bottle) 7	0	0	—			
LEAD.	Per ton.					
English Pig, com. 20	0	0	20	5	0	
Ditto, ordinary soft..21	0	0	21	5	0	
Ditto (WB) 22	10	0	—			
Ditto, sheet.....21	10	0	21	15	0	
Ditto, red lead 23	10	0	24	0	0	
Ditto, white 27	0	0	30	0	0	
Ditto, patent shot....23	15	0	24	0	0	
Spanish.....20	0	0	—			

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—The events of the past week have had the effect of continuing (it was almost impossible to increase) the complete stagnation of business in the Metal Market. The commencement of actual hostilities on the Continent has entirely dissipated all hopes of peace, and we must now be contented to watch the progress of the terrible war now taking place, and wait the results which will follow, though what those results may be it is utterly impossible to foresee. It must, however, for a time at least, interfere most prejudicially with all commercial operations. The late adverse vote in the House of Commons, and the subsequent course adopted by the Government, which will involve either a change of ministry or a dissolution of Parliament, either of which at the present time would be a serious calamity, will tend, in some measure, to increase the already heavy feeling of depression, and defer any improvement in business, from a fear lest this country should be led to swerve from the strict line of neutrality which she has hitherto observed, and thus become, unfortunately, mixed up with the complications on the Continent. The continuance, also, of the high rate of interest (no alteration in the Bank rate having yet taken place) for so unusual a length of time, is becoming very serious. These various unfavourable influences will, we fear, continue to keep the Metal Market in its present state for some time, unless some favourable and unexpected change should arise to cause matters to take a more satisfactory turn.

COPPER is now in a state of great inactivity and dulness, and all hope of improvement has vanished for the present, and there now seems every probability that a fall in prices will occur before long, as buyers can operate considerably under smelters' prices.

IRON.—In Staffordshire the trade is very much depressed. The orders in hand are generally worked out, and very few, and those of small amount, are coming in. The best demand is for the United States, for which small quantities are being supplied, but the leading merchants, both home and foreign, are refraining from buying, owing to the present state of the Money Market. The general impression is, however, that no reduction in the prices of finished iron will be made at the Quarterly Meeting, as there seems no prospect of reducing wages at present. In Welsh, orders are at present very small, and there is no disposition manifested to enter into new engagements; and, while buyers only give out those orders which cannot well be kept back, makers are clearing off the old contracts they have on their books. Shipments continue to be made principally to the United States, and the next mail from New York is anxiously looked for, as it will doubtless bring intelligence of the effect the heavy failures here have had on the American market. The present inactivity which rules in the Eastern trade seems likely to be prolonged beyond the period anticipated. There is no change to record in transactions with the other foreign markets. In Swedish iron the market remains in the same condition as last week. In Scotch pig-iron the price has not varied materially during the week; the last advices from Glasgow state the present price to be 53s. 6d. cash.

LEAD remains still inactive, and prices are rather easier, common English pig being now quoted at 20*l.* to 20*l.* 5s. per ton.

TIN.—The market for foreign remains almost entirely without change, and very few transactions have taken place, and the general impression seems to be that we shall still see lower prices.

SPELTER.—In this metal alone there seems to be some activity, and in consequence of the commencement of hostilities on the Continent the price has considerably advanced, and sales of several hundred tons have taken place at various increased prices up to 25*l.* per ton, which is the present quotation for parcels on the spot, and there is no doubt we shall still see higher prices as the war continues.

ZINC has been advanced 2*l.* per ton.

TIN-PLATES.—There is a great falling off in the demand, and prices have, in consequence, become much easier.

STEEL and QUICKSILVER without change.

BIRMINGHAM, JUNE 22.—Rylands' "Iron Trade Circular" says—The failure of Mr. Thomas Rose, of Millfields, is not so important in our trade as it has been made to appear. Unexpected to some, it has not surprised many. Markets continue inactive, but prices will be marked the same; and while discounts are high, little business can be done, as the margin of profit is not sufficient. Mills and forges are, therefore, half out of work, and masters and manufacturers can neither buy nor sell.

Dulness has prevailed in the general markets the whole week, and in MINING SHARES there is nothing particularly new to report upon. Mines, we have little doubt, will take a more prominent position ere long, but we first want a better price for copper and tin, and this, at present, is the most interesting point to discuss and enquire into. A rise of 5*l.* or 10*l.* in the standard for copper, and of 10*l.* per ton in tin, would cause great activity in shares. In respect to tin, it is said the Dutch supply is likely to fall off, and it would be well if this could be positively ascertained. The Dutch sale has been every year the *bete noir* of the Cornish miner, and the cause of the stoppage of many mines; and, as the supply of Cornish tin is lessening every week, it is most important for these mines that keep their heads above water to know more about the foreign supply, and to get up some sort of commission to enquire into it. If Great Wheal Vor and Dolcoath would take the initiative others would join. Drake Walls, that used to return about 20 tons a month, has suspended some of its operations, and Wendron Consols, that formerly returned about the same quantity, and latterly about 8 tons, has been suspended altogether; so that every week lessens the supply, and the demand keeps up. Surely we ought to look for a considerable advance in price.

The shares chiefly in demand during the week have been Camborne Vean, East Caradon, Chontales, Prince of Wales, Chiverton Moor, Wheal Chiverton, Wheal Crebor, Great Wheal Vor, and a few others; but no large amount of business has been transacted in any. Great Laxeys keep firm at 20½ to 21¼; the quarterly dividend of 7500*l.*, or 10s. per share, was paid on Thursday, and the report of the mine shows a considerable improvement in the 110, going north, where the lode is worth 100*l.* per fm., with every appearance of further improvement. This level, which formerly opened out a large extent of valuable ore ground, gradually fell off, and became poor; and, as it has now opened out again into a fine, bold lode, worth 100*l.* per fm. for lead, the agents consider, as the level is in advance of all other levels, and in whole ground, that it is the commencement of a new deposit. The 165 north is worth 120*l.* per fathom.

Great North Laxey, 1¾ to 2⅛; the improvements going north in Great Laxey are important for this mine—indeed, the agent reports this week that the lode in the shaft is 6 feet wide, worth 2 tons of lead ore per fathom, and from the change taking place in the engine-shaft especially, he expects soon to be able to report some considerable improvement. Clifford Amalgamated, 6½ to 7; at the meeting the accounts showed a loss of 1405*l.* in the two months, the balance against the company 4254*l.*, and a call of 10s. per share (1440*l.*) made. The report of the mines is favourable. East Caradon shares advanced to 8½, and leave off 7½ to 8. The 90 east, on the caunter lode, is worth 30*l.* per fathom; the 80 east, 15*l.*; the 70 west, on the south lode, 20*l.*; and the 60 east, 15*l.* per fathom. In the cross-cut in the 100 the caunter has been intersected 3 ft. wide, but disordered by the elvan at present. Camborne Vean, 35s. to 40s.; Chiverton Moor, 5⅜ to 5⅝; Devon Great Consols, 440 to 450. Wheal Buller, 10 to 12; the 80, east of Kistle's shaft, is now 4 feet wide, composed of gossan, quartz, and peach, spotted with mundic and rich copper ore. The ground is soft for driving. East Basset, 11 to 13; East Wheal Grenville, 2⅛ to 2⅜; Frontino and Bolivia, 12s. 6d. to 15s.; Marke Valley, 3¾ to 4; North Treskerby, 2¼ to 2½; Prince of Wales, 8s. to 10s.; Providence Mines, 22 to 24; South Darren, 3 to 3¼; Tincroft, 9½ to 10½; West Caradon, 5 to 7. West Chiverton, 65 to 67½; we understand this mine never looked better, but we are never favoured with a report now. Wheal Chiverton, 6 to 6¼; this mine also has great prospects—in fact, looking far better than when shares were 15*l.* each. Wheal Crebor, 10s. to 12s.; Wheal Grenville, 30s. to 35s.; Wheal Seton, 175 to 180. We understand that the judgment of the House of Lords in the South Frances case, which was adjourned a month ago *sine die*, was given this morning (Friday), and unanimously in favour of South Frances. Shares, which were at 10 to 11 on Thursday, have risen to 17½, 20.

The market for mine shares on the Stock Exchange has, during the week, been very dull. Quotations are not materially altered, but the general tendency is towards lower prices. There has been some little demand for St. John del Reys, and Chontales are wanted for delivery, the account being over-sold. There is no other feature in the market to record. Great Laxeys are steady at 20½ to 21¼, ex div.; the report from the mine is favourable. West Chiverton, 65 to 70; the western ends have improved, the bottom level is richer than at any former period, and the prospects were never better. Chiverton, 6½ to 6¾; Cookney's engine-shaft is valued at 4 tons of silver-lead ore per fathom, and an improvement has taken place in the 86 fm. level east. Chiverton Moor, 5⅜ to 5⅝; the lode recently intersected in the 50 cross-cut is worth 8 cwts of lead per fathom—a promising lode. St. John del Rey, 48 to 50; the meeting is called for the 27th instant; a dividend of 4*l.* per share, for the half-year, has been declared. Cobre, 12 to 14; Don Pedro, ¼ to ⅜ prem.; Anglo-Brazilian, ⅛ dis. to par; Frontino and Bolivia, ¾ to ⅛ dis.; Chontales, 1½ to 1¾ prem.; English and Australian Copper, ¾ to 1; Port Phillip, ⅜ to ⅞; Yorke Peninsula, ⅛ to ¼; General Mines enquired for at 20 to 22; Central American, ¼ dis. to par; Mineral Rights, ¼ dis. to ¼ prem.; Cape Copper flat, 2 to 2½ prem.; Great Wheal Vor, 17½ to 18½.

IRISH MINE SHARE MARKET.—The political and financial causes which have for weeks past adversely influenced nearly all other securities have at length also touched our mining shares, the prices of which vascillated considerably since our last notice, on the 9th instant, and have at length given way to a considerable amount, although not near to the extent of some other securities. On several days the general share market was exceedingly languid, and transactions of a very limited character. Mining shares at last participated in the general depression, and although on some days there was a rally from sudden unimportant falls, the prices stand at present lower than for some time past. For instance, Mining Company of Ireland shares, which, on the 8th instant, were done at 17*l.* 12s. 6d. (7*l.* paid), have just changed hands at 16*l.* 15s. for account, with only an indifferent prospect that an improvement, which is sure to set in again, will take place soon. Wicklow Copper shares (2*l.* 10s. paid) have also finally suffered a drop from our last quotation, which stood at 23*l.* 12s. 6d., and at the time created a desire to realise, are now bought at 22*l.* 10s., being an improvement, however, of fully 10s. per share on the terms of a few transactions effected at the close of last week. Offers have been made to purchase the next half-yearly dividend, expected to be declared by this company at 22s. per share, the last dividend having amounted only to 14s.: 3*l.* per share would be given for General Mining Company for Ireland shares. Connorree shares have been on sale at 17s. per share; Carysfort shares have changed hands, at 3s. to 4s., and more would be taken.

The applications for shares in the WHEAL GOLDEN SILVER-LEAD MINING COMPANY (Limited) have been large; the extraordinary energy that is being brought to bear at the neighbouring mines (Penhale and Lomax), which are under the same management, is, no doubt, accepted by the public as an evidence of the spirited skill that will be displayed in the whole of the details connected with the development of the mine for the extensive working of which this well-organised company has been formed.

At Truro Ticketing, on Thursday, 3460 tons of ore were sold, realising 13,687*l.* 2s. The particulars of the sale were:—Average standard, 108*l.* 4s.; average produce, 6¼; average price per ton, 3*l.* 19s.; quantity of fine copper, 214 tons 9 cwts. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
May 17....	4945	£115 2 0	5¼	£3 12 6	13s. 1d.	£65 2 0
„ 24....	2484	104 0 0	6⅞	4 8 0	12 9¼	64 0 0
„ 31....	3961	107 13 0	6¾	4 4 0	13 0	65 0 6
June 7....	1503	105 6 0	6⅞	3 18 6	12 4¼	62 2 0
„ 21....	3460	108 4 0	6¾	3 19 0	12 7	62 18 0

Compared with last week's sale, the advance has been in the standard 1*l.*, and in the price per ton of ore about 1s. 3d. Compared with the corresponding sale of last month, the decline has been in the standard 3*l.*, and in the price per ton of ore about 3s. 6d.

At Herodsfoot Mine meeting, on June 12, the accounts showed a profit on the four months' working to end of April of 1538*l.* 0s. 10d., and a balance of assets over liabilities of 3423*l.* 11s. 6d., and a cash balance of 1541*l.* 7s. 1d. A dividend of 30s. per share was declared. Messrs. Loam, Hawke, Isaac, and Lyne were re-elected members of the committee, who were authorised to offer the 40-in. engine, with two boilers, and the pitwork to the lord, in accordance with the terms of the lease, and in the event of his declining to take them, that they be offered for sale by public auction or private contract. Captain Trevillion says—"Taking into consideration the great prospect of success in our bottom level, I consider the mine to be in a sound and healthy state. Our returns have been about the same for the past four months, but from the great depression of the metal market and other causes we have not obtained such a high price for our ores; this will account for the dividend being 5s. less. For the future, we may anticipate usual returns, and if the price of ores keep up the present or increased rate of dividend."

At Wheal Trelawny general meeting, on Thursday (Mr. W. Page in the chair), the accounts showed a profit on the three months working of 259*l.* 5s. 5d. A dividend of 260*l.* (5s. per share) was declared. Details will be found in another column.

At the Cuddra Mine meeting, on June 24, the accounts showed a cash balance of 309*l.* 14s. 1d., and an excess of liabilities of 1285*l.* 6s. 2d. A call of 3s. per share was made. [The agent's report is among the Mining Correspondence.]

At the Leawood Mine meeting, on Monday (Mr. Wescomb in the chair), the accounts showed a debit balance of 1003*l.* A call of 1*l.* per share was made. Details in another column.

At Copper Hill Mine meeting, on Wednesday, the accounts showed a debit balance of 614*l.* The loss on the four months' working was 389*l.* A call of 10s. per share was made.

At Clifford Amalgamated Mines meeting, on Wednesday, the accounts showed a debit balance of 4254*l.* The loss on the two months' working was 1405*l.* A call of 10s. per share was made.

At the New Bampfylde Copper Mining Company meeting, on Wednesday (Mr. Charles Hand in the chair), the report and accounts, of which an abstract appeared in last week's Journal, were unanimously adopted. The Chairman stated that a discussion had taken place at the board as to the expediency of making a call, not that such a course seemed to be immediately or absolutely necessary, but because it would help to economise the company's expenditure. He trusted, however, that the future raisings and sales of ore would render it unnecessary to re-open the question. Mr. Mogford suggested the advisability of making the items comprised in the amount of 2611*l.* 17s. 9d. charged for working expenses more explanatory in future statements, which being agreed upon, it

was unanimously resolved that Messrs. C. Hand, Thomas, Gough, Nation, S. Hand, Brooks, W. Hand, and E. Milne be elected directors of the company.

At Wheal Margery meeting, on June 13, the accounts showed a debit balance of 750*l.* 16s. 8d. A call of 10s. per share was made. The report is among our Mining Correspondence.

At Spearn Moor Mine meeting, on June 14, the accounts showed a debit balance of 513*l.* 18s. 9d. A call of 1*l.* per share was made. Capts. Bennetts and Ellis say—"We have employed on tutwork and tribute 62 men and 4 boys; tribute averaging 14s. in 1*l.* We expect the tin sales for the next quarter to be a little above 20 tons."

At Great Wheal Fortune meeting, on June 15, the accounts showed a debit balance of 1816*l.* 10s. 11d. A call of 1*l.* per share was made. Messrs. George Eustice and Son were appointed the engineers of the mine, in the room of Mr. Grose, deceased. Capts. George and Miners say—"The discovery recently made on the Carnmeal lode cannot be overrated, looking at the position of this mine relative to the Great Wheal Vor, which has been and is now so rich for tin, being parallel and opposite, in close proximity, crossed by the same cross-course, and in the same stratified rock. That mine was found to be poor about the same depth that this mine became impoverished, and after passing through the unproductive ground between the gossan bunch bunch and the deep deposit that lode suddenly became rich, and we believe a similar thing to what occurred in that mine is repeating itself here. Number of men employed on tutwork, 54; kibble fillers and landers, 4; at surface, including smiths, carpenter, enginemen, &c., 24; on the dressing floors, men, boys, and girls, 48; 16 pitches being worked by 37 men, at an average tribute of 13s. in 1*l.*: total, 167."

The directors of the Dunraven Collieries Company have announced an interim dividend upon the paid-up capital at the rate of 10 per cent. per annum, which will be payable on and after July 10.

The Pontgibaud Silver-lead Mining and Smelting Company have announced that an instalment of 10 frs. per share, on account of the dividend for the year 1865-6, is to be paid on the 25th inst.

At the South Australian Company annual meeting a dividend was declared at the rate of 8 per cent. per annum, or 2*l.* per share.

At the Kapunda (S.A.) Mine meeting, on Monday (Mr. C. S. Bagot in the chair), the report of the directors was received and adopted. Details in another column.

The Bank of England return for the week ending on Wednesday evening is again favourable, but no change has been made in the minimum rate of discount. In the ISSUE DEPARTMENT there is shown an increase in the notes issued of 478,435*l.* In the BANKING DEPARTMENT there is shown on the liability side an increase in the "rest" of 39,297*l.*, an increase in the "public deposits" of 161,375*l.*, and an increase in the "other deposits" of 1,044,010*l.*—1,244,682*l.*, from which must be deducted the decrease in the "seven day and other bills" of 27,017*l.*, leaving a total increase on the liability side of 1,217,665*l.* On the asset side there is shown a decrease in the "other securities" of 61,115*l.*, and an increase in the Government securities of 50,000*l.*, leaving 11,115*l.*, which, added to the increase on the liability side, gives a total increase in the reserve of 1,228,780*l.*

At the Imperial Mexican Railway Company meeting, to be held on Wednesday next, the directors' report to be presented states, on the authority of Mr. James Samuel, that great progress has been made in the construction of the works of the railway since the date of last report, and the attention of the shareholders is desired to the important particulars submitted by the engineer, that the earthworks have been completed on 217 miles of the railway. Judging from the intelligence contained in recent despatches, it is probable that the section between the city of Mexico and the junction with the branch line to Puebla, at Apixaco, a distance of 85 miles, has been completed by the date of the present report. The engineers' estimate of the traffic receipts on the Mexico and Puebla division shows a probable minimum of upwards of 50*l.* per mile per week, and an estimated rate of working expenses of 33½ per cent., and that the additional expenditure sanctioned by the shareholders to expedite the completion of this portion of the railway may be expected to be amply repaid. The electric telegraph is now completed on 133 miles of the railway; 14,000 tons of rails and fastenings have been already shipped, of which about 10,000 tons have been delivered at various points between Puebla and Mexico. Considerable progress has been made in the erection of workshops at Vera Cruz and Orizava. Four locomotive engines have been completed, of which two are already shipped, and two ready for shipment. Two more locomotives will be completed by the end of the present month. Six first-class carriages, three composite carriages, ten second-class, and ten third-class carriages, and 50 covered goods wagons are now completed, and ready for shipment; but these are by no means adequate to meet the traffic which must be provided for ere the Mexico and Puebla division of the line can be worked to advantage. To avoid the delay which must otherwise occur in the shipment of plant and materials, it has become necessary to raise immediately, by debentures, the funds required for the completion of the upper portion of the railway. The board think it a matter of congratulation that they have been able to defer the issue of their bonds until bondholders will have a most ample guarantee for the money they advance in a first charge on a railway ready to be opened for traffic over a length of 160 miles, and running, for the most part, through a rich, fertile, and populous district. The bonds will necessarily bear a high rate of interest, and the directors more particularly invite the attention of their own shareholders to an investment so secure and advantageous in itself, and so calculated to give a permanent value to the share capital of the company.

The Master of the Rolls has appointed Mr James Cooper (Johnstone, Cooper, Wintle, and Evans) official liquidator of the New Zealand Banking Corporation (Limited).

The Master of the Rolls has appointed Mr. E. Hart (Hart Brothers and Co.) official liquidator to the Reese River Silver Mining Company (Limited).

On the Stock Exchange a very limited amount of business has been transacted in mining shares during the week. The following prices were officially recorded in British Mining shares:—Chiverton, 6 to 6⅛; Great Laxey, 21 to 21¼; Wheal Seton, 175; East Caradon, 8¼; East Carn Brea, ⅞. In Colonial Mining shares the prices were:—Cape, 9¼ to 9⅜; Scottish Australian, ⅜; Worthing, ½; Yudanamutana, ⅜. In Foreign Mining shares the prices were:—Chontales, 3⅝; United Mexican, 1⅞; Frontino and Bolivia, ¾ to ⅞; Panulcillo, 2½ to 2¾; St. John del Rey, 49.

COAL MARKET.—The fresh arrivals this week amount to 112 ships. For household coals the demand has continued active, and prices quote an advance of about 1s. per ton, and the market entirely cleared. Hartley's remain stationary. Haswell Wallsend, 19s.; South Hetton Wallsend, 19s.; East Hartlepool Wallsend, 18s. 6d.; Kelloe Wallsend, 17s. 6d.; Tunstall Wallsend, 16s. 6d. Unsold, *nil.*; at sea, 35 ships.

THE COPPER TRADE.—Messrs. J. Pitcairn-Campbell, of Liverpool, report—The improvement noticed in our last has entirely disappeared, under the influence of advices from the West Coast, S.A., and the continuance of general depression in commercial matters here. After the bombardment of Callao, the Spanish fleet appears to have left the coast, and shipments of copper were again being renewed with tolerable freedom. Estimates of the shipments in the second quarter were increasing, and some reach as much as 270,000 quintals, or (say) 12,000 tons pure copper. The demand for bars from France has diminished, and our quotation must be reduced to 79*l.* and 80*l.*, whilst the extreme value of ore and regulus is 14s. 9d. to 15s. Stocks of copper produce (Chilian and Bolivian) in first and second hands likely to be available are—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool ..Tons	2445	4645	1800	446	25
Swansea	7238	6001	530	253	—

Sales since our last have been—

May 31	600 tons ore, at Swansea, ex Ocean King	£ 0 15 0 per unit.
June 1	687 tons regulus, at Swansea, ex Caldera	0 15 0 per unit.
June 2	406 tons ore, on spot here, ex Oberon	0 15 0 per unit.
June 2	627 tons ore, on spot here, ex San Lorenzo	0 15 0 per unit.
June 2	25 tons ingots, on spot here, ex San Lorenzo	87 0 0 per ton.
June 4	280 tons ore, on spot here, ex Calabar	0 15 0 per unit.
June 4	172 tons regulus, at Swansea, ex Capricorn	0 15 0 per unit.
June 4	25 tons barilla, on spot here, ex Hayti	0 17 0 per unit.
June 4	55 tons barilla, on spot here, ex Venezuelan	0 17 0 per unit.
June 5	72 tons regulus, on spot here, ex San Lorenzo	0 15 0 per unit.
June 6	55 tons ore, } at Swansea, ex Glory	0 15 0 per unit.
June 6	55 tons regulus, }	
June 7	530 tons regulus, on spot here, ex Fusilier	0 15 0 per unit.
June 9	150 tons bars, on spot here, out of second hands	80 0 0 per ton.
June 11	95 tons barilla, on spot here, ex Cuban	0 17 0 per unit.
June 11	180 tons ore, at Swansea, ex Burns	0 14 9 per unit.
June 12	420 tons ore, at Swansea, ex Patagonia	0 14 9 per unit.
June 12	200 tons regulus, on spot here, ex Nauphante	0 15 0 per unit.

In addition to which 565 tons ore, ex Maipee, and 480 tons ore and 110 tons regulus, ex Elizabeth Martin, have been sold here on private terms. Quotations are 79*l.* to 80*l.* for bars, 86*l.* 10s. to 87*l.* for ingots, 14s. 9d. to 15s. for ores and regulus, and 17s. for Barilla. Arrivals from the West Coast, S.A., during the past fortnight—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Sancta Bega, Carrizal..Tons	—	552	38	—	—
Chiloe, Callao	95	425	—	—	—
Cuban, Colon	—	—	—	12	95
Santiago, Carrizal	665	270	—	—	—
At Swansea—					
Tarapacca, Flamenco	584	151	—	—	—
Lord Marmion, Caldera	180	550	—	—	—
Glen Udal, Pau de Azucar	760	—	—	—	—

SAN FRANCISCO, MAY 5.—Mr. J. C. Winans reports:—The product of Nevada amounted to $1,100,000 last month, and the aggregate recorded receipts of bullion in this city were about $4,000,000 during the same period. At Crown Point the receipts of bullion for the month of April exceeded $100,000, and a dividend of $80 per foot will probably be declared on the 10th instant. At Hale and Norcross a dividend of $50 per foot will be declared on the 10th inst. Gould and Curry receipts of bullion last month were $143,000, and the ore crushed, chiefly at the company's mill, averaged about $46 per ton. There is a prospect of a dividend of $50 per foot some time this month. Ophir receipts of bullion last month amounted, in the aggregate, to $99,200. At Cholar Potosi, during the week ending April 27, 773 tons of ore were sent to Custom mills, and 133 tons were sold, at $5 per ton.

NEW YORK, JUNE 7.—The prices of pig-iron, both American and Scotch, are higher, and in the market there is more activity, especially for the latter. The best brands of American are offered sparingly, and only at full prices. From store, the demand is moderate; but stocks, which are well assorted and large, are held firmly at an advance.—*Iron Age.*

THE CAMBRIAN CONSOLIDATED GOLD MINES COMPANY (Limited).—We understand that the Liquidator is about to offer the mines, machinery, and plant of this company for sale by auction in a short time. This will afford an excellent opportunity to any person or company desirous of further speculating in Gold Mining in Wales.

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 25th instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to supply—

BEST BRITISH IRON.

And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M., of the said 25th day of June, 1866, after which hour no tender will be received. GERALD C. TALBOT, Director-General.

India Office, June 15, 1866.

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 25th instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to supply—

ZINC.

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India Office, June 15, 1866.

TO SLATE QUARRY MANAGERS.—WANTED, an EXPERIENCED AGENT, to TAKE the MANAGEMENT of a SLATE QUARRY in active operation in SOUTH WALES.—Apply, stating qualifications, and with copies of testimonials, to the Pant-y-Glien Slate and Slab Company (Limited), 4, Allhallows Chambers, 49, Lombard-street, London, E.C.

WANTED, a SITUATION as MINE AGENT, to superintend a small mine.—For particulars, apply to MATTHEW GROSE, Jun., South Foxdale, Rushen, Isle of Man.

WANTED, a PARTNER, who could invest £2000, to JOIN a COMPANY (at present in full work) to more FULLY DEVELOPE an IRON ROYALTY consisting of 2000 acres, situate in the best hematite iron district in the North of England, which also contains roofing slate and slate flag of fine quality and abundant quantity. There is also a large deposit of clay, which the company are at present making into bricks, tiles, &c., which have a large demand in the neighbourhood. The royalties, as above, have been secured for 21 years, on very favourable terms, from the lessor, and offers a certain and lucrative investment.—Further particulars may be had on application to "J. K.," box 59, Whitehaven. None but principals will be treated with.

A GENTLEMAN having an extensive connection with merchants, manufacturers, and others, would be GLAD to UNDERTAKE the SALE of PATENTED ARTICLES or INVENTIONS, upon commission.—Apply to Mr. W. T. RAWLE, patent and mining agent, 8, Small-street, Bristol.

IMPORTANT TO CAPITALISTS AND MINING COMPANIES.—The ADVERTISER, who is a Cornish Mining Captain of 40 years' experience, both in England, Wales, Ireland, France, and Italy, and now resident in the latter country, is OPEN to an ENGAGEMENT to INSPECT MINING PROPERTIES. The Advertiser is also in possession of, and acquainted with, several VALUABLE PROPERTIES, containing lodes of GOLD, SILVER, LEAD, COPPER, and NICKLE ORES, which he is authorised TO DISPOSE OF. He will be happy to afford information on all points connected with mining. All applications to be addressed Captain JOHN KESSELL, Burgofranco, Ivrea, Italy; or Scopello Mines, Scopello, Val-Sesia, Piedmonte.

A GENTLEMAN, of great mining experience, WISHES to MEET with FOURTEEN OTHERS to SUBSCRIBE FIFTY POUNDS EACH to defray preliminary expenses for the purpose of OBTAINING SETTS of GOLD and SILVER in the NEVADA TERRITORY. The advertiser will proceed to that country immediately, and survey a rich tract of mineral ground, and obtain the required grants, which will be the property of the subscribers.

Address, "C. B.," MINING JOURNAL office, 26, Fleet-street, London.

PONTGIBAUD SILVER-LEAD MINING AND SMELTING COMPANY.—Notice is hereby given, that an "A COMPTE," or INSTALMENT, of TEN FRANCS PER SHARE, on account of the dividend for the year 1865-66, is to be PAID on the 25th day of June inst. This "a compte" will be paid at the office of the company, No. 24, Rue Richer, Paris, and at the London agency, No. 6, Queen-street-place, on presentation of the share certificates with fifth dividend coupon *not detached*, which will be stamped. The payments made in England will be subject to the deduction of income tax, and of 1d. per 10 frs. for exchange. JOHN TAYLOR AND SONS.

London Agency, 6, Queen-street-place, E.C., June 18, 1866.

THE EL-CHICO SILVER MINING AND REDUCTION COMPANY (LIMITED).—Notice is hereby given, that the THIRD ANNUAL GENERAL MEETING of Shareholders of the El Chico Silver Mining and Reduction Company (Limited), will be HELD at the offices of the company, on TUESDAY, the 26th inst., at One o'clock, to receive the report of the directors, with a statement of accounts, and to elect two directors and auditors.

By order of the Board,

B. C. HOOKE, Secretary.

29, Threadneedle-street, London, E.C., June 16, 1866.

VICTORIA (LONDON) MINING COMPANY (LIMITED).—Notice is hereby given, that the Directors of this Company have this day made a CALL of TWO SHILLINGS AND SIXPENCE PER SHARE on the last issue of 25,000 shares, PAYABLE at the Company's bankers, Messrs. Barclay, Bevan, Tritton, Twells, and Co., 54, Lombard-street, London, on or before Wednesday, the 11th day of July, 1866. By order,

Dated June 19, 1866. C. H. FIELDER, Secretary.

METROPOLITAN DISTRICT RAILWAY COMPANY.—Notice is hereby given, that the TRANSFER BOOKS will be CLOSED from the 25th to the 30th day of June, PREPARATORY to the PAYMENT of the HALF-YEAR'S INTEREST due by the contractors on the 1st of July next.

Provisional scrip certificates, fully paid-up £100, bearing 6 per cent. per annum, and ordinary £10 paid, bearing 5 per cent. per annum, must be forwarded to the Registrar, at the offices of the company, in order that the dividend warrants may be duly prepared. GEORGE HOPWOOD, Registrar.

6, Westminster Chambers, Victoria-street, S.W.

MESSRS. C. THOMAS AND CO., CIVIL AND MINING ENGINEERING OFFICES,
POOLFOLD CHAMBERS, CHAPEL WALKS, MANCHESTER,
AND REDRUTH, CORNWALL.

MR. GEORGE DARLINGTON, CONSULTING MINING ENGINEER (Graduate of the Royal School of Mines), GROVE PARK, WREXHAM.—Mr. DARLINGTON is OPEN to ACCEPT ENGAGEMENTS to REPORT UPON, MODEL, or ARRANGE MINES or MINING WORKS, and from his practical and varied experience in all kinds and classes of mines, both abroad and at home, especially on the Continent, in America, and in Australia, he can confidently offer his services to those who may require faithful reports or examinations of mining properties at home or abroad. Mr. DARLINGTON speaks French and German fluently, and is acquainted with the mining laws of those countries.

TO MINE, SLATE QUARRY, AND RAILWAY COMPANIES.—CAPT. C. WILLIAMS is NOW OPEN to UNDERTAKE ALL KINDS of CONTRACTS, such as DRIVING LEVELS, SINKING SHAFTS, CONSTRUCTING WATER COURSES, CANALS, TRAMWAYS, &c., and ERECTING ALL SORTS of MACHINERY for MINING and OTHER PURPOSES, having on hand at all times a first-class staff of miners and machinists, who will proceed to any part of the world upon the shortest notice.

N.B.—In all cases 30 per cent. will be left in hand until the work is complete.

Tyn-y-Wern, Tallesin, via Shrewsbury.

WASHOE, REESE RIVER, AND OTHER MINES AND MINERAL PROPERTIES in NEVADA and CALIFORNIA, INSPECTED AND REPORTED on, with Assays and Analyses to show the character as well as extent of the ore, and instructions as to the most economical method of reduction by

W. T. RICKARD, F.C.S., M.G.A., &c. (late Mitchell and Rickard, London)
GOLD HILL, NEVADA, U.S.

London Agent:—T. W. Burr, Esq., 12, Paternoster-row.

HORIZONTAL ENGINES FOR SALE, at very low prices:—One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE and Co., Laurence Pountney-place, Laurence Pountney-hill, Cannon-street, E.C.

PORTABLE ENGINES, with PIT WINDING GEAR.—Portable in stock up to 14-horse power. Gear to order to suit circumstances.—Apply to BARROWS and CARMICHAEL, engineers, Banbury, Oxon.

BASTIER'S CHAIN PUMP.—This patent pump is the MOST EFFICIENT in existence for LIFTING ANY QUANTITY of WATER from ANY DEPTH. One lifting from a depth of 170 ft. may be seen at work daily, on application to the

SOLE LICENSEES,
MESSRS. J. JACKSON AND CO., ENGINEERS, 17, GRACECHURCH STREET, LONDON, E.C.,
Who SUPPLY PUMPS and LICENCES.

Communications to Mr. Bastier, the patentee, to be sent to the same address.

AGENT FOR THE COUNTIES OF NORTHUMBERLAND AND DURHAM, YORKSHIRE, DERBYSHIRE, AND NORTH STAFFORDSHIRE,
MR. THOMAS GREENER, MINING OFFICE, NORTHGATE, DARLINGTON.

Now ready, crown 8vo., price 2s. 6d., a Treatise
(Dedicated, by permission, to the Right Hon. Lord Berners)
ON THE EXTENSION OF THE ENGLISH COAL FIELDS BENEATH THE SECONDARY FORMATIONS OF THE MIDLAND COUNTIES.
Also,
DOES COAL EXIST NEAR LONDON, GEOLOGICALLY CONSIDERED.
By JOSEPH HOLDSWORTH, Esq., M.G.S., &c., &c.
London: Published at the MINING JOURNAL office, 26, Fleet-street, London.

VARIATIONS IN THE PRICE OF TIN.

The following tabular form, showing the variations in the price of tin during the past thirty-three years, will be read with considerable interest at the present time:—

FOR METALLIC TIN.

1833	..Per ton.	£70	0	0	Four years' average, £81 5s.	For the same four years, average for black tin	£60 15 0
1834		70	0	0			
1835		85	0	0			
1836		100	0	0			

FOR BLACK TIN, OR TIN ORE.

1837	..Per ton.	£42	2	6	Average of five years, £45 18 6	1852	..Per ton.	£53	7	8	Average of five years, £67 0 6
1838		38	14	4		1853		67	2	9	
1839		43	19	0		1854		67	0	9	
1840		50	14	6		1855		68	6	3	
1841		54	2	0		1856		79	5	0	
1842		35	18	0		1857		72	13	0	
1843		36	2	0		1858		66	10	0	
1844		41	18	9	£43 4 3	1859		75	16	0	£71 0 0
1845		51	10	9		1860		70	15	0	
1846		50	12	0		1861		69	5	0	
1847		46	10	6		1862		65	3	9	Four years' average, £62 10 0
1848		42	12	0		1863		66	6	3	
1849		44	17	6	£45 3 10	1864		63	10	2	
1850		45	0	0		1865		54	18	6	
1851		46	17	6							

CONSUMPTION OF COAL IN CORNWALL.

The following figures, showing the annual importations of coal at the principal ports of the county of Cornwall, will be read with great interest:—

Hayle	Tons 70,000	St. Agnes	Tons 12,000
Devoran	66,000	Falmouth	12,000
Portreath	60,000	Penryn	10,000
Penzance	50,000	Fowey	6,000
Truro	30,000	Calstock	6,000
Looe	25,000	The Mount	5,000
Par	20,000	St. Germans	5,000
Padstow	17,000	Boscastle	5,000
Portheven	15,000	Newquay	3,000
St. Ives	14,000	Bude	2,500
Gweek	12,000		

Hayle, it will be seen, is at the head of the list, the two great ironfounders, and, we believe, the only importers here—Messrs. Harvey and Co., and Sandys, Vivian, and Co.—having a very large interest in the mines of the county, especially in the mines of their district. Truro—so far as its port is concerned—is the largest importer in the county, figuring for 95,000 tons; but this includes Devoran, Point, Restronguet, and Perranwharf, where not less than 66,000 tons are landed annually; of the remaining 29,000 tons, about 20,000 tons are landed at Malpas, and 9000 tons at Truro itself. The Chiverton Mines have, of course, caused a greatly increased consumption of coals for mining purposes, all of which is now landed at Truro.

Portreath at one time was at the head of the list, partly owing, no doubt, from its proximity to Camborne, Redruth, and the Gwennap mining districts; but also from the business connections and enterprise of the Williams's (of Scorrier) family; and also to the interests of the Bassets, of Tehidy, who are the lords of so many mines in that district, and who would, of course, draw their supplies from hence, Portreath being the property of the Basset family, and, in fact, until of comparatively recent date, bearing its name as "Basset's Cove." Devoran has of late years been a keen competitor for the supply of coal, one of the leading copper smelting firms (Vivian and Sons) being owners of large collieries in Wales, and shipping most of their ores at this port enables them to load coals at easy rates, and adding greatly to the profit by being enabled to command back freights. Their steamers—the *Morfa* and *Augusta*—the only ones in the regular trade, are continually making rapid passages between Wales and Cornwall. The coal trade has materially increased at this port of late years, mainly arising from accommodation afforded by the Redruth Railway running from hence through the Gwennap and Redruth mining districts; and as well from the great extent of public warfing at Devoran, which must always command a large trade. The coal landed at Devoran is chiefly shipped at Swansea, Port Talbot, and Porth Cawl.

Of the coal landed at Fowey, probably nearly 3000 tons are consumed at Lostwithiel and neighbourhood; when the rail is opened to Fowey, the importation will, no doubt, greatly increase. Penzance is, of course, a large importer, nearly all the St. Just mines drawing their supplies from that port. A great deal of the coal landed at Bude is sent by canal to Launceston, Holsworthy, &c. The Caradon Mines draw their supplies from Looe. The consumption of coal in the county is said to be considerably over 500,000 tons a year, giving employment to a great quantity of shipping, and, when mining was profitable, yielding large profits to those interested in the trade.—*West Briton.*

A New Mineral, to which the name of Laurite has been given, has lately been found in Borneo, and a description of it laid before the Paris Academy of Sciences by M. Wohler. It is found mixed with the ore of platinum, and occurs in the form of small globules, not above ½ millimetre in diameter.

San Francisco is going to be supplied with water from a lake in the Sierra Nevada mountains by an aqueduct 200 miles long.

LEAD ORES.

Date.	Mines.	Tons.	Amount.	Purchasers.
June 18	—Dylife	44	£12 0 6	Walker, Parker, & Co.
	Sold at LIVERPOOL, from the Linares Mines.			
May 23	—LOT 1 (ex *Mail*)	57	£13 12 6	Panther Co.
	—LOT 2 (ex *Themis*)	31	13 15 0	ditto
June 21	—LOT 1 (ex *Orkney*)	63	13 0 0	Panther Co.
	—LOT 2 (ditto)	63	12 10 6	Walker, Parker, & Co.
	—LOT 3 (ditto)	64	12 10 6	ditto

BLACK TIN.

Date.	Mines.	Ts. c. q. lbs.	Price p. ton.	Amount.	Purchasers.
June 14	—Great Wh. Vor	..70 9 0 2	—	£3365 2 2	—
16	—Penhalls	6 13 1 1	—	302 6 7	—

COPPER ORES.

Sampled June 7, and sold at the Royal Hotel, Truro, June 21.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols	135	£4 4 6	East Caradon	96	£3 10 0
ditto	129	4 7 0	ditto	92	3 16 0
ditto	127	3 15 0	ditto	78	3 2 6
ditto	125	3 14 6	ditto	64	2 18 6
ditto	124	4 11 6	Brookwood	82	1 15 6
ditto	122	3 1 6	ditto	52	3 0 0
ditto	116	4 11 0	ditto	51	3 12 0
ditto	113	2 15 6	ditto	50	3 4 6
ditto	112	4 6 0	ditto	45	7 18 6
ditto	104	3 11 6	Wheal Friendship	82	5 1 6
ditto	99	2 15 6	ditto	40	2 2 0
ditto	97	4 2 6	ditto	36	12 7 6
ditto	93	4 4 6	Bedford United	67	4 7 6
ditto	84	4 1 0	ditto	56	4 2 6
ditto	66	3 5 0	Gunnislake (Clitters)	104	3 12 6
ditto	59	3 2 6	ditto	2	6 7 0
ditto	46	11 11 6	Crelake	80	3 8 6
ditto	39	10 5 0	W. Maria & Fortescue	34	1 1 0
Marke Valley	94	2 12 0	ditto	16	3 17 6
ditto	89	2 7 6	North Robert	35	2 18 0
ditto	55	5 19 6	Wheal Edward	29	2 10 6
ditto	54	3 14 6	Sortridge Consols	19	3 10 0
ditto	53	6 8 0	ditto	9	3 15 0
ditto	49	3 1 0	Hawkmoor	24	3 1 6
ditto	33	1 19 6			

TOTAL PRODUCE.

Devon Consols	1790	£7448 4 0	Wheal Crelake	80	£ 274 0 0
Marke Valley	427	1539 7 6	Wt. Maria & For.	50	97 14 0
East Caradon	330	1116 11 0	No. Wh. Robert	35	101 10 0
Brookwood	280	1003 0 6	Wheal Edward	29	73 4 6
Wheal Friendship	158	945 13 0	Sortridge Consols	28	100 5 0
Bedford United	123	524 2 6	Hawkmoor	24	73 16 0
Gunnislake (Clit.)	106	389 14 0			

Average Standard ..... £108 4 0 | Average Produce 6¼
Average Price per ton £3 19 0
Quantity of Ore ..... 3460 tons | Quantity of Fine Copper, 214 tons 9 cwts.
Amount of Money £13,687 2 0
LAST SALE.—Average Standard ..... £105 6 0.—Average Produce 6⅜
Standard of corresponding sale last month, £104 0 0.—Produce, 6⅞.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	589½	£2294 8 0
Freeman and Co.	230½	1010 18 0
Grenfell and Sons	306	1891 2 6
Sims, Willyams, and Co.	534½	1607 9 6
Williams, Foster, and Co.	652½	2670 3 6
Mason and Elkington	181½	649 18 0
Bankart and Sons	272	1025 16 0
Copper Miners' Company	256	1027 9 0
Charles Lambert	35	101 10 0
Newton, Keates, and Co.	129	561 3 0
Penclawdd Copper Company	18	67 1 0
Hadland and Co.	264½	780 3 6
Total	3460	£13,687 2 0

No offer was made for the Crown Copper Company, and notice was given that no offer would be made in future.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday next.—Mines and parcels.—South Caradon, 433—Clifford 361—Phœnix 276—West Damsel 265—Glasgow Caradon 155—Fowey Consols 150—Craddock Moor 129—Hallenbeagle 124—Great North Downs 112—Wheal Polmear 109—Grambler 38—Pembroke 4.—Total, 2156 tons.

Copper ores for sale, at Tyack's Hotel, Camborne, on Thursday week.—Mines and parcels.—Clifford Amalgamated 880—West Wheal Seton 479—Carn Camborne 291—Wheal Basset 186—East Pool 153—South Wheal Frances 134—Tolcarne 115—North Roskear 111—South Tolgus 85—South Condurrow 70—North Grambler 42—West Stray Park 16—Crane 12.—Total, 2574 tons.

WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON AND CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and the state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON and CUELL have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON and CUELL they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are also daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

CHONTALES AND FOREIGN LANDS.—"G. C.," and others, do not exactly understand the issue of 19,000 Chontales shares named in our last, and ask in what way, and in what proportions, dividends would be declared? "G. C." says, "the total number of shares in Chontales is 30,000, and if Foreign Lands has 19,000, and the public 11,000," he asks, "supposing the mine to be in a position to give 30,000*l.* in dividends, would each shareholder receive 1*l.* per share—or, in fact, should I receive 20*l.* upon my 20 shares?" "G. C." is labouring under a misconception as to the constitution of the company, and as others are probably in the same position, we may explain—That the Chontales Company was originally formed in 30,000 shares, of 5*l.* each. Of these 26,000 were issued to the public, and have now 2*l.* per share paid upon them; and 4000, with the full amount (5*l.*) paid up, were given to the Foreign Lands Company as part of the purchase-money of the mines. In addition to this, however, the Foreign Lands Company were entitled to one-third of the profits of the mines as royalty, and some months ago the Chontales Company purchased this royalty for 75,000*l.*, by giving the Foreign Lands Company 15,000 B, or royalty shares, representing 5*l.* paid up. The Chontales Company, therefore, consists now of 45,000 shares, 19,000 *paid up*, and 26,000 with 2*l.* paid, and liable to 3*l.* per share more; and as by special agreement with the Foreign Lands Company none of the profits of working the gold can be spent in plant, machinery, or purchase of new mines, the funds necessary for these purposes will have to be provided by the holders of the 26,000 shares, now 2*l.* paid. As to dividends, suppose the mines made a profit of 30 per cent., the 26,000 shares would receive it on the amount paid up, on 2*l.* or 3*l.* per share, as the case may be, and the 19,000 would receive the 30 per cent. on 5*l.* per share. Should the mines only make 15 per cent., then the 4000 fully paid-up shares would receive it on 5*l.*, the 26,000 on the amount paid up at the time, and the 15,000 B, or royalty shares, *nothing*. If the profits are 22½ per cent., the royalty shares would get 7½ per cent. or all over 15, but the mines must pay over 22½ per cent. to give the royalty shares the full benefit of the profits. For instance, they would receive their proportion of the *whole* of 23 per cent. and upwards. And as the prospectus estimated the annual profits at 150 per cent., the fully paid-up shares, and also the royalty shares *at par*, must be cheaper for investment than the ordinary shares (subject to calls) can be at *a premium*, and we have no doubt they will command a good deal of attention as the mines progress.

WHEAL TRUSCOTT.—We have this week received a reply to a letter we addressed the agent, accompanied by a sketch of the mine, to show us that had the lode kept its underlie, as seen at the shaft, it would have been intersected some time ago; and, from its not having been met with, it has evidently gone down more perpendicularly, which is a good sign. The water is now slowly but gradually sinking in the shaft, which shows the cleavage is dipping towards the cross-cut, and the lode may be intersected in a few fathoms further driving. The agent considers, also, that if it be cut in the channel of ground now in the cross-cut it will be found very productive.

"A. B." (Manchester).—Nos. 1 and 2 very heavy, and, we should think, unprofitable concerns; and in times like these the directors should consider the propriety of going on or of winding-up, and so relieve the minds of many in the position of "A. B."

"G. H."—A relinquishment of shares relieves a shareholder in a cost-book mine from further liability. The form is very simple, merely a letter to the purser or secretary that you relinquish your shares, and this is laid before the first meeting, and formally accepted. You then have to pay your proportion of debts to the end of the month in which you relinquish, and your name is taken off the cost-book.

"A. A."—We never heard of the concern. Who is secretary or manager?

"X. Y. Z."—Our advice for nearly 30 years has been never go into any new concern without first having it inspected by an independent agent. Too many people are led away by a flourish of trumpets and the reports of interested agents. An independent report can generally be had for 2*l.* 2*s.*, and we can name several agents that can be relied upon. Above all things, beware of "old men's tales." The quantity of ore left in old workings by "old men," that only wanted machinery to get out, has been an *ignis fatuis* that many have bewailed.

CHONTALES.—"A." (Glasgow).—At the time referred to the shares were 3¼, 3⅛, buyers, and they were afterwards offered for sale at 2¾—so that our advice was not so bad as "A." thinks. Every means have been taken to prevent shareholders from selling, and to get up the price, to punish the "bears;" but when that punishment is over there will, in our opinion, be a "collapse," and we have special reasons for thinking so.

"C. A."—The call does not in any way surprise us. When the accident first happened, and shares were at 26*l.* each, we gave its true character and probable results, upon information that *we knew to be correct*; but the agents contradicted our statements, and we were sadly abused on the market for telling the truth.

PRICES OF MATERIALS,

As charged at WHEAL MARGERY during the following months:—

Description.	Nov.	Dec.	Jan.	Feb.
Hoop iron ..... per cwt.	13s. 6d.	—	—	13s. 6d.
Borer, cast-steel ..... ,,	45 0	—	—	—
Blister ditto ..... ,,	50 0	—	—	—
Nails, 4 in. patent ..... ,,	—	—	20s. 9d.	—
Ditto, 3 in. ..... per 1000	—	—	4 10	—
Iron shovels ..... per cwt.	—	—	28 0	—
B.B. whim chain, 11-16ths ,,	—	27s. 0d.	—	—
Kibbles, each	—	—	—	11 0
Leather ..... per lb.	2 0	—	2 0	2 0
Norway timber ..... per foot	8d.-9d.	0 8	0 8	0 8
Yellow pine ditto ..... ,,	1 3	—	—	—
Coals, contract ..... per ton	11 11	11 6	12 1	12 3
Best candles, deliv. free ..p. doz.	6 0	6 3	6 3	—
Tallow ..... per cwt.	55 0	—	55 0	—
Grease ..... ,,	—	20 0	20 0	—
Powder ..... per 100 lbs.	36 0	—	—	—
Safety-fuse ..... per coil	4d.-5d.	0 5	—	0 4
Rope ..... ,,	44 0	—	44 0	—
Hemp ..... per lb.	0 5¼	—	—	—
White yarn ..... ,,	0 5½	—	0 5½	—
Hilts ..... per doz.	1 9	—	—	1 9

MODERN MARINE ENGINEERING.—The sixth part of Mr. N. P. BURGH'S work, entitled "Modern Marine Engineering, applied to Paddle and Screw Propulsion," has just been issued through Messrs. Spon, of Bucklersbury. The Chromo-lithographs are a transverse section of Her Majesty's armour-plated steam-ship *Hector*, showing guns, decks, armour-plating, and engines fitted complete, and the slide-valve and casing of the engines fitted in the merchant steamer *Ruahine*, constructed by Messrs. J. and W. Dudgeon. The letter-press portion contains a description of the side flue arrangement for boilers; duplicate return tubular arrangement; direct return tubular arrangement. In connection with the action of the flame upon the tube-plate, Mr. Burgh gives a few ideas of his own, which appear to be that the flame plays continuously on the tube plate, "minute curved hollows being formed and destroyed in succession, with sufficient velocity to ensure the actual contact of the flame on the surface between the tubes." He maintains that the opinion that the perforations in the plate receive the direct flow of the flame is incorrect. The printing and plates are fully equal in character to those of the preceeding numbers.

RIPARIAN RIGHTS AND WATER PRIVILEGES.—A letter, addressed to Lord Redesdale by Mr. M. B. JACKSON, has just been printed in pamphlet form. Its object is to show the losses and injuries sustained by the owners of riparian rights and water privileges through the incompleteness of the Standing Orders of Parliament, and the extraordinary assumption and usage of the absolute rights of landed proprietors to the rain or surface water falling from the clouds by water companies and others. Mr. Jackson is of opinion that no one can have any right to such portion of the water of a river or stream as is derived from drainage from the adjoining land, and that, consequently, millowners, manufacturers, water companies, and others should be compelled to pay royally to all landowners through whose property the stream they use passes. Mr. Jackson proposes to secure the landowners' rights (?) by certain engineering arrangements which he suggests, and which consist, practically speaking, of damming up the surface water, so as to prevent such water entering the stream.

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt: it then forms an accumulating useful work of reference.

MANGANESE.—In reply to "Inquirer," this mineral does not admit of the use of stamps, and only under certain circumstances will it pay the expense of washing. If "Inquirer" will send samples, or call upon me, I shall be glad to give him all necessary information, and show samples of the various qualities of manganese which are of any commercial value.—JOHN MACQUEEN: *Abchurch House, Sherborne-lane.*

SIR,—Will some legal reader be good enough to give me an answer to the following question? Is it legally sufficient in a "register of shareholders" (Limited Liability Act) to enter several shares held by one and the same individual, where the numbers are consecutive, in one line? For instance, John Jones, 20 shares, 1 to 20. Or is it necessary that each of these shares shall be shown separately as, John Jones, 1, 2, 3, and so on?—QUERY.

GREAT DEVON AND BEDFORD (COLCHARTON) MINE COMPANY (Limited).—At a special general meeting of this company, held at the London Tavern on June 12, it appears that a resolution was adopted for a voluntary winding-up of the company, on the ground of "the impossibility of effecting a further mortgage on the property in the present state of the mine." The estimated costs of working the mine for the next 15 months is 1920*l.*, when the agents do not anticipate unfavourable results. Can it be the case that this property, upon which the shareholders have expended so many thousands since they purchased the freehold, is now only worth the existing mortgage of 2000*l.*? Why, the machinery alone should be worth that sum. Would it not have been more to the interest of the present shareholders had they raised their shares to 3*l.*, when they might have paid off their mortgage, and worked the mine according to the before-mentioned estimate for the next two years?—A SHAREHOLDER.

ORE-SEPARATING MACHINES.—I shall be unable fully to answer the letter of "Engineer" on this subject for a few weeks to come, for certain private reasons. I shall do so, however, at my first leisure; but, in the meantime, I must add that having had the opportunity of examining Mr. Hunt's apparatus, I found it greatly exceeded in perfection the idea I had always had of it from mere hearsay, while I still maintain that I think the other still better.—E. S.

CHONTALES—"G. C. O."—The paid-up shares *will* receive a greater proportion of dividend than the unpaid-up shares, and simply because the nett profits will be divided according to the amount paid (or considered as paid) per share; this, of course, does not apply to the royalty or "B" shares. The paid-up shares are not yet officially quoted.

WALLACHIAN PETROLEUM COMPANY.—It is a matter of regret that this company should now be involved in the meshes of the law. That its business affairs could be conducted so as to return good dividends to the shareholders is admitted by all parties concerned. Even Dr. Paul, the manager, one of the litigants, acknowledges that the company have a "brilliant future before them," if their works were carried on in a legitimate manner; and the truth of this position is, I believe, admitted by the directors. Then why, in the name of Common Sense, is not a meeting convened, to satisfactorily arrange the difficulties which at present exist, and spiritedly prosecute the operations at the works for the benefit of the shareholders, instead of still further provoking dissension, and creating charges on the shareholders to defray unnecessary expenses, only to serve the lawyers? Let the directors bestir themselves, and act as business men, then they may obtain a good return for the capital subscribed. As things are, they are jeopardising their own position, as well as the capital of the shareholders.—READER.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, JUNE 23, 1866.

RAISING WATER ECONOMICALLY FROM MINES.

Upon the publication of the highly interesting paper upon BASTIER'S Chain-Pump, read at a recent meeting of the North of England Institute of Engineers, by Mr. GREENER, it was stated that an early opportunity would be taken to make known the particulars of the pump just started at the New River Company's well at Hoddesdon, in Hertfordshire, in order that an opinion might be formed as to the practicability of applying Mr. BASTIER'S principle upon the large scale usually regarded as necessary for mining. The adoption of the invention by our greatest water company is alone material evidence that it is worthy of consideration, notwithstanding the little noise it has hitherto made in the mining world, and the inspection of the pump is certainly not calculated to diminish whatever favourable opinion may be formed of it. The correctness of the principle has never been doubted, but with regard to its general application, upon a large scale, two objections have been, at different times, raised—the one that the pump could only prove successful when the tube was of small diameter; the other that it could not be employed to pump from great depths. In his official report upon the Machinery Class of the International Exhibition, Mr. CLARK expressed the opinion that the pump was admirable with tubes not exceeding 5 or 6 inches diameter, but that above that size the principle could not be applied; and certain members of the North of England Institute of Engineers have expressed themselves with equal confidence as to its inapplicability where the depth exceeds some 100 feet. Mr. CLARK'S assertion is completely refuted by the success of the Hoddesdon pump, and there is no reason to doubt that as soon as a trial has been made in deep pumping the other objection will be proved equally invalid.

The diameter of the tube used for the pump at Hoddesdon is 15 inches, except at the contracted portion, where it is lessened to 14 inches, and each revolution of the chain pulley raises rather more than 13 feet of chain, consequently at 40 revolutions per minute the speed of the discs would be (say) 525 feet, and allowing for the space occupied by the chain and discs, nearly 3000 gallons per minute would be raised—a quantity which would bear very favourable comparison with any other pump occupying only about 4 feet 6 inches by 1 foot 6 inches in the shaft. The pump works with a smoothness and ease really admirable, and as there are no complicated parts, as there necessarily must be even in the best constructed pumps of the ordinary kind, to get out of repair, the cost of keeping it in working order must be very trifling, even when the water pumped is so charged with grit and rubbish as to try the pump to the utmost.

With regard to the objection that there would be difficulty in applying the pumps to pits of the depths generally in use, it is certainly not easy to conceive the ground for the objection, since the strength of the chain is the sole point which would require especial attention, and it is obvious that in a chain-pump the facilities for enlarging the chain, so as to give it almost any desired amount of strength, are unusually great, and no reasonable amount of enlargement would affect the passage of water to an extent which could not be more than compensated for by slightly increasing the speed, by which increase, owing to the column of water being kept more rapidly in motion, the working of the pump would be rather aided than otherwise. Indeed, in pumping from great depths there would be no difficulty in using double chains, running parallel to each other, and on pulleys side by side to draw the discs, by which arrangement the additional advantage would be gained that, in the event of the breakage of a chain, there would still be one to hold on to permit the necessary repairs to be made. It is understood that other pumps will shortly be at work in deeper mines, and thus the merits will be definitely settled by actual practical working. An order for a 5-in. pump, 500 ft. lift, is at present being executed for San Francisco.

GALE'S NON-EXPLOSIVE GUNPOWDER.—The experiments which it was stated in the *Mining Journal* of May 26 were about to take place in No. 37 Martello Tower, between Hastings and Rye, for the purpose of proving the value of Mr. Gale's invention for rendering gunpowder explosive and non-explosive at pleasure, were made on Wednesday, and the result was in every respect highly satisfactory. The protective composition used by Mr. Gale is powdered glass, prepared in a peculiar manner. The commonest glass is heated to whiteness, and thrown into water, to render it friable; it is then treated in a barrel in which some iron shot has been placed, and in scarcely more than a minute it is reduced to an impalpable powder—an extremely fine glass-flour. This is mixed with the powder, in the proportion of two parts to one, if it is only meant to render it non-explosive, but still leave it fiercely combustible; in the proportion of three parts of glass-flour to one of common powder, if it is meant to make it incombustible; and in the proportion of four parts to one of the strongest gunpowder to make the latter absolutely harmless. Four parts are, however, generally considered necessary only for the strongest Government powder. The method of mixing the two is simply an adaptation of Robinson's cask-cleaning machine, which gives to the cask it holds a rapid double motion, two minutes of which is sufficient to blende the glass-flour and the coarse grains of powder perfectly. It seems that the objection that the bulk of the powder is unnecessarily increased by Mr. Gale's process is completely untenable, for it appears that when gunpowder is stored in the ordinary manner the kegs are but three-fourths filled, in order that the grains may be free to roll, and so prevent their "caking." This necessary precaution, however, induces another evil, which is that the constant friction of the grains often reduces half the contents of a keg to dust, and immense quantities are thus yearly returned to the mills to be re-corned before it can be used. Some kegs fired in the tower by electricity actually went out after burning a short time, and it was then determined to set fire to the building, which was easily done, as the floor of the bottom storey consisted of loose planks, placed at a little distance from each other, so that they would readily burn, as the air could get between them. A pile of dry firewood was placed on this floor at the edge of the barrels of gunpowder, and on this being fired dense volumes of smoke were seen to issue from the door and windows of the tower. It was soon evident from the colour of the smoke that the gunpowder was being consumed; but, although the quantity of smoke was very irregular, and sometimes very dense, nothing approaching to an explosion occurred. The arrangements were under the superintendence of General Lefroy. Nearly all the members of the Ordnance Select Committee were present. General St. George and many other officers and gentlemen also witnessed the proceedings, and all expressed their complete satisfaction at the results.

THE SELECT COMMITTEE ON MINES.

HOUSE OF COMMONS, JUNE 14-20.

Present—Mr. NEATE (in the chair), Sir P. DE GREY EGERTON, Mr. LIDDELL, Mr. FOSTER, Mr. GREENALL, Mr. KINNAIRD, Mr. POWELL, Mr. WOOD, and Prof. FAWCETT.

The Rev. H. R. SANDFORD said: I am the Government Inspector of Schools for South Staffordshire and North Worcestershire. I visit all Church of England schools and all other schools that receive the Government grant. I have been Inspector 13 years, and have had experience in North Cheshire, the North and East Ridings of Yorkshire, and elsewhere. Confining myself to the mining districts generally, I should say that the state of education has much improved of late years, but that it is still very low when compared with that of other industries. That improvement has been gradual, and extended over many years; but it received a great stimulus from the prize system introduced a few years ago by the coal and ironmasters. It consists of giving books and other rewards as prizes for attendance. The plan was suggested by Messrs. Tremenheere and Norris. The prizes are given away publicly, and with some little ceremony. I have noticed since the Act of 1860 that the children in the schools are a little older than before. I am sorry I cannot give any accurate statistics on the point, but the proportion of mining children in the schools to those of other trades is very small. There was lately a discussion (Lord Lichfield in the chair) with regard to the employment of children, &c., and all the teachers present got up, one after another, and complained of the smallness of the number. That question arose incidentally. Of course, I speak generally of the children of miners, without reference to those affected by the Act of 1860. I also find the amount of education very low. The proportion of children over 10 years of age is only 16 or 17 per cent. In the mining districts, while in the textile manufacturing districts it is 40 per cent. Of these boys 64 per cent. could not read an easy narrative with no words of more than three syllables, and the easier parts of the New Testament; and 50 per cent. could not write more than their names. Out of 11 collier boys at the Corngreaves night school only five could write their names, only four could read words of one syllable, and only one could tell the Queen's name. These were boys between 12 and 17. At Ettingshall school several could not say the Lord's Prayer. As a rule, I may mention that almost all collier boys can say the Lord's Prayer, even when they know nothing else. I have made enquiries of masters of workhouses as to the educational state of inmates from mining districts, and have found that a large percentage cannot read, and the women are found to be very ignorant of household or needlework.

By Prof. FAWCETT: I have some knowledge of the continental mining districts. In Prussia the collier boys generally can read and write, but there no boy is allowed to go into the pit before the age of 14, and are obliged to attend school to that age. Practically the boys in Belgium and Prussia are more easily managed than English boys.

By Mr. LIDDELL: It is practically a compulsory system of education up to 14. There are some exceptions in some factories, but then under that age they only work half-time. The want of such a system up to 14 is sufficient to account for the comparative ignorance of English boys. On this point I should like to put in a letter I received on Aug. 20, 1865, from Herr Bunsen, the Member for Bonn. He says:—"I hope that you may come to Germany another year, and see these matters at greater leisure. For the moment the enclosed will, I trust, open the way to what you wish to learn, provided you find the gentlemen at home, for this is the travelling season in Germany. Herr von Dechen was at the head of the mining district comprising the Rhenish province and part of Westphalia; he is reckoned a great authority in geological matters, and I know him to have taken great interest in everything relating to the well-being of the mining population. He has now retired. You will find him a thorough gentleman, and in earnest. Baron Diergart is a considerable manufacturer, of immense activity, and devoted to general matters of mental culture. Dr. Hammacher is a leading man in the iron district of Essen, and I should think, although I do not know, that he has taken personal interest in questions of education. There can be no question which these three men would not answer, directly or indirectly, in the interesting field of comparison you mean to traverse. As for myself, I cannot personally offer much information on the subject. The principal mining districts of North Germany are—The coal fields of Saarbrücken (belonging to the State); the Regierungsbezirk, or Department of Düsseldorf, teeming with industry of all kinds—mining principally; parts of Westphalia, the Hartz Mountains, Upper Silesia, and the Erzgebirge, in the kingdom of Saxony. Elementary education being by law universal and compulsory, there will scarcely be a difference traceable between the schooling of children in these and any other districts. Factory children are protected by law from overwork. Fortbildungsschulen (*i.e.*, schools for such as have left school voluntarily, of course), are, I expect, more common in manufacturing than in the agricultural localities. Looking with the eyes of a traveller merely, I have been struck with the greater liveliness in the former. The complete change produced in the character of the Westphalian people by the growth of industry is astonishing. Bœotians transformed into sons of Hephæstus. In the ancient mining districts (Hartz and Erzgebirge) there is much of old-fashioned demure gentleness visible in manners and customs; whilst those which have sprung into existence more latterly bear the impress of go-a-headism and petulance. Acts of violence and habits of immorality are frequently reported from the latter. It has seemed to me as if some evils which had to be overcome in England by painful experience—evils springing from the masters' liberty to do with their "hands" as they pleased, using them as necessary evils, as mere substitutes for machinery—have been prevented in parts of Germany, thanks to your experience, by wise regulations and laws, which it may possibly be worth your while to obtain and study. Our present growth dates from sixteen years ago. Hence the advantage of standing upon the shoulders of your older industry."

Mr. LIDDELL: He is an enthusiast on the subject of book education, but if a boy is compelled to attend school up to 14 do you think he can learn anything practically of that which he is to pursue in after life?—I used to think boys must begin young, and I said to my German friends that if boys became too fond of their books they would be disinclined to take to the rougher kinds of labour, such as mining is. They told me that they did not find that to be the case; but, then, in Germany everybody is educated. I have talked to miners who were the best educated, and they said nothing to indicate a desire to shirk the rough work, and several lads, who were present, said they liked the work very well. I know the work viewers do—it requires considerable knowledge, and those who hold that position have generally worked up gradually to it. I have always gone on the supposition that boys must begin young, but I do not find that that is the general opinion. I have no decided opinion about it myself.

Mr. LIDDELL: Have you taken into your calculations the supply of labour?—Yes: no doubt it would affect the supply of labour considerably, but if the hours of labour were shortened, and the condition of the mines improved, so that the risk would be lessened, it would not be so difficult to obtain labour.

By Mr. GREENALL: In Prussia everybody pays a school tax. The hours of attendance at school on the Continent are different to what they are here. They begin at 8, and here it is generally half-past 9. They are an early people. The parents are fined if they do not send their children to school.

Mr. GREENALL: Do you think people in this country would submit to that?—I do not know that they would, but Germany is in favour of everybody being educated.

Mr. FOSTER: You think that parents would more readily employ their children in mines if the boys had more time to improve themselves?—Yes.

Mr. FOSTER: Are you not aware that as it is colliers and collier boys have a great deal of time on their hands when not employed underground?—They have Mondays, when they, no doubt, idle about a good deal; but, on the other hand, when they are at work it seems to me very exhausting, at least for boys.

Mr. FOSTER: But besides Mondays there are Sundays, so that two days out of the seven they have a good deal of time on their hands, but do you find in them much desire to avail themselves of the Sunday school, or attend school on Mondays?—It seems to be the fashion to make Monday a lounging day, but a great many come to the Sunday school.

Mr. FOSTER: But is not Sunday made a lounging day also?—To a great extent it is; but still a large number go to school, and, probably, more would, but they are badly managed. They are kept too long at a time, and the lads are taught little or nothing. The gentry do not teach, and there are only the working men to conduct them. They are, however, on the whole of great use, and in many cases the children do learn something. I think there is a desire on the part of the parents that the children should keep up in after life what they learnt at school. I cannot say if there is a desire on the part of the parents to employ them before the age of 10, contrary to the Act of Parliament.

Mr. FOSTER: Do they not look with dislike on compulsory arrangements of that kind?—There is a strong opinion against education being forced; but whenever I have attended meetings the speakers have always expressed themselves in favour of the boys being kept at school. I have noticed that there are amongst the colliers many well-educated, decent, respectable men. I am not aware that they have had any advantages over others. There is nothing in their employment to prevent them becoming so if they choose. It is the same as in other classes; but in other classes I do not find the same gross ignorance and drunken, brutal violence. I agree with Mr. Lloyd that to reach the masses of the colliers there must be more compulsion as to education than at present.

Mr. POWELL: Do you find the night schools keep up the earlier education?—If well grounded it is kept up; but if not, it is soon forgotten, but even then boys who have been to school in their earliest days learn quicker afterwards than others.

Mr. POWELL: Are you aware that in Germany imprisonment is inflicted on parents when a fine is found to be insufficient to make them send their children to school?—I am not.——Mr. POWELL: It is though.

Mr. LIDDELL: Crimes with violence are more prevalent amongst colliers than amongst other classes of labour?—I do not know that these crimes are generally perpetrated by what may be called the floating part of the population.

Mr. LIDDELL: Has your attention been called to the evidence of the witnesses as to the South Yorkshire collieries, where the miners are said to be most respectable men, and very provident; so that many of them have houses of their own, which they let out at high rents; that their houses are well furnished; that their daughters have pianofortes, and their sons other musical instruments?—I have not heard that evidence, but it may be correct. I do not say that all colliers are likely to commit crimes of brutal violence, but the bulk of them grow up in ignorance, and they do break out into crimes of that kind, of which we all know, and all read about in the papers. I will not say they are more pre-

valent among colliers than among brickmakers; but they are decidedly more prevalent amongst them than in the textile factory districts.

By Prof. FAWCETT: It is not so much the nature of the employment as the deficient state of education which produces these effects. The children up to 14 are not employed in skilled labour, but chiefly in opening doors, driving horses, and such like.

The CHAIRMAN: You wish, I believe, to extend some of the provisions of the Factory Act to mines: will you first state what are the provisions of the Factory Act as to education?—No child is allowed to work under eight years of age, and hen for six hours and a half only; and between eight and thirteen to go to chool two hours and a half per day, or ten hours alternate days. A child working alternate days is to attend school five hours. After thirteen there is no regulation as to education, but simply as to hours of labour. I was anxious to see these regulations, or something like them, extended to the Potteries, and I brought the matter before the employers. They agreed to attend a meeting to discuss it. Mr. Adderley, M.P., presided, and we had a discussion. Some thought the Mining Inspection Act would best suit the Potteries, and others the Factory Act. At length it was agreed that I should make enquiries, and see which was, in all points, the most applicable, and would work best. I consulted Mr. Akroyd, M.P. for Halifax, a great advocate for the half-time system; Mr. W. Walker, a large manufacturer of Bradford; Mr. Baker, Factory Inspector of North Staffordshire, and many others, and the general result of my enquiry was that, while I thought the Mining Act might do a little good in keeping children from working so hard, it did not bring so many children to school as the Factory Act did. Upon this I recommended the adoption of the Factory Half-time Act, and a Government Commissioner was sent down, and he came to the same conclusion. The result was that a bill was brought in by Mr. Bruce in 1864, extending the Half-time Act to the Potteries, and it has brought hundreds of children under education who never came before.

By Prof. FAWCETT: I have heard difficulties raised as to the application of that Act to mines. One is that the boys live at such a distance from their work; but the answer to that is to adopt altenate days; but in that case they should not work more than nine hours, or else it would be no mercy to the children, and no improvement. The wonderful effects of the Factory Act in the textile districts is quite notorious, and all opposition to it has ceased to exist. I must say they are more anxious about education than in the Midland Counties. At the same time, it depends more on the occupation of the children than whether tney have an Act providing for education or not.

Prof. FAWCETT: Would the coalowners and colliery proprietors welcome some extension of the Factory Act?—I am not sure about the coalowners. They think the Act troublesome as it is. My own feeling in the matter is that a little trouble is of more value than money. They would think of the trouble of enforcing the Act far more than the pecuniary support of schools, liberal as it often is now. All the difficulties I have heard against it would be obviated by adopting the alternate day system instead of the half-time system. There is one thing now, and that is that boys up to 16 should be compelled to attend a night school two or three hours. That seems to be carrying the compulsory system further than it is now carried, but in Switzerland, which is a very free country, they are taught not only reading and writing, but up to 16 are obliged to receive a religious instruction as well. The only difficulty attending night school education is the tired condition of the boys resulting from long hours of labour.

Prof. FAWCETT: Do you advocate a limitation of hours?—No system of education can be satisfactorily carried out if the hours of labour are more than nine between the ages of 12 and 16. It is an invariable suggestion of the miners themselves at their meetings that no boy should be employed at all till 12 years of age, and that up to 14 he shall attend school three hours per day, and be instructed in the elements of chemistry and geology. Eight hours would be too long for boys between 11 and 13.

By Mr. LIDDELL: At present the half-time system is generally in use in indoor employments. I do not think the compulsory adoption of the half-time system by one class will be an injustice to others to whom it is not applied. Sir Cornwall Lewis advocated it in the case of the mining boys, but said he did not think the country would at present submit to the general measure of enforced schooling.

Mr. GREENALL: You would not employ a boy under 16 more than nine hours?—Not if you want him to go to the night school afterwards.

Mr. GREENALL: How long do they work now?—They are down in the pit 12 hours, but I do not think they are at work all that time.

Mr. FOSTER: Is the committee to understand that you wish to confine these limitations to the collieries?—No; certainly not.

Mr. FOSTER: What are your recommendations as to boys employed in mines?—Between 10 and 13 to go half-days, or alternate days; between 13 and 16 to attend night school three hours a day; supposing they do not work more than eight or nine hours.

Mr. FOSTER: Do you think the parents are prepared to forego so much of the weekly earnings of their children?—All miners I have spoken to want their own hours reduced to nine, and I believe it will come to that.

Mr. FOSTER: Are you aware that in slack times like the present the mines are only worked four days a week?—Yes.

Mr. FOSTER: Then, when that is so, what would you give to the boys—two days a week, I suppose?—Yes.

Mr. FOSTER: Then, are the circumstances of the parents such as to enable them to support their children on two days' earnings?—I do not see why they should not. They do not work at all in Germany until 14.

Mr. FOSTER: Are you aware that Mr. Dickinson has said that were there no such thing as poverty such restrictions might be enforced; but that there is a great deal of poverty, and that in the numerous cases where the father is killed, the widow is obliged to get her boys out as soon as she can?—I am not aware.

By Mr. WOOD: If the boys were better educated, and worked less hours, I believe there would be no difficulty in getting boys to work at mining.

The remainder of the sitting was occupied by an exposition by Mr. G. F. Ansell, of the Royal Mint, of his invention to indicate the presence in mines of fire-damp and carbonic acid gas. A very complete set of apparatus, and a number of experiments most successfully conducted, were used by Mr. Ansell to explain the principles and action of his invention. It was stated incidentally in the course of the experiments, that although Mr. Ansell had met with every assistance on the part of the colliery owners to test his instruments in the mines themselves, they were not at present adopted in this country; and also that two sets had been ordered for trial by the French Government Inspector of Mines.

June 20.—Present: Mr. NEATE (in the chair), Mr. HUSSEY VIVIAN, Prof. FAWCETT, Mr. LIDDELL, Mr. GREENALL, Mr. FOSTER, Mr. WOOD, Sir P. DE GREY EGERTON, Mr. CLIVE, Mr. KINNAIRD, and General DUNNE.

Mr. THOMAS EMERSON FOSTER said: I am President of the North of England Institute of Mining Engineers. I am manager and viewer at the Seaton Delaval Colliery, and consulting engineer of the Earl of Lonsdale's and other collieries. I have been engaged in mining operations 49 years. At the Seaton Delaval Collieries we have about 1000 men, and in all the pits with which I am connected there are probably 7000 or 8000. There are weighing-machines at the pit's mouth at every colliery in Cumberland, and with only one exception in the county of Durham. The coals are all weighed, and the wages are paid once a fortnight. If wages were paid weekly it would be a serious injury to the workmen. At present the wages are paid on a Friday, and the men never work on the following Saturday; besides which, 30 or 40 per cent. do not work on the Monday following as well, and some even take a part of Tuesday. This would happen weekly instead of fortnightly, and the loss to the families of the men would be serious indeed.

Mr. LIDDELL: Are not the workmen very fond of gaming?—Not so fond as they used to be. They are very fond of bowling, and there is a great deal of tossing for halfpence—pitch and toss—and some of them lose a good deal of money that way. A good many are excellent runners, and races are very common. These amusements go on extensively on the days when they do not work. Some are fond of gardening, and go in a good deal for the flower shows. The Act of 1860 is well complied with. Boys under twelve invariably have certificates that they can read and write, or that they attend school a certain number of hours. In the Seaton Delaval Pits we have no boys under twelve; but in other pits there are some between ten and twelve, though not a great many. We have schools at Seaton Delaval. They are all mixed schools, but not under Government inspection.

Mr. LIDDELL: What would be the effect if boys under twelve were not allowed to enter the mines?—Practically speaking, they do not now go down with us, but when they do the effect would be to throw a proportion of the men out of employment, as there would be less coal worked. If the cost of production were thus increased, of course the price to the consumer would rise.

Mr. LIDDELL: We have heard a great deal about relays; what do you say to that?—We could not get boys—there are not a sufficiency now unemployed to make up the deficiency that would be created by such a change.

Mr. GREENALL: If you meet with boys down your pit between the age of 10 and 12 who could not read and write, what should you do?—I should send them away, a nd tell them to go to school again.

Mr. FOSTER: Supposing there were sufficient boys, and it was quite practicable, would it not be very costly to have two shifts of boys instead of one?—It would; and, besides, changing in the middle of the work would be dangerous. The comparative irregularity of mining work, also, would be an obstacle to having double shifts of boys. When the men are idle the boys are obliged to be idle too. A double set of boys, each working eight hours, would involve a double set of ponies, as we could not expect horses and ponies to work 16 hours, and that expense would be considerable. Supposing that, instead of double shifts in the same day, the shifts worked alternate days, each shift would not get more than two days' work per week, and two days' pay. Their wages then would not be sufficient to provide them with clothing.

By Sir P. EGERTON: The schools are not under Government inspection, but they are well conducted, and in the winter there are night schools for the bigger boys. They are supported by the workmen, who pay for the children from 3d. to 6d. per head. This is much better than if the schools were free, as in that case the mothers would be continually keeping their children at home for every conceivable motive, whereas, now that they pay, they are anxious to get the worth of their money. I know that from the masters of the schools. I do not see how the hours of the boys in the mines can be limited—they are regulated entirely by the hours of the men. The lowest grade are trappers—little fellows set to open doors. The next class are drivers, who drive the horses on the ways. The next class are putters, who bring the coal from where the men work to where the large horses take them away. These boys have ponies, which are found by the owners. If the number of boys were to be restricted the present hewers would hew a great deal more coal than could be got out, and the first effect would be to reduce also the number of hewers.

Mr. WOOD: You have said that in Northumberland and Durham, except at one pit, the wages are paid by weight; we do not find that is the case in other districts, and I, therefore, ask why you do it?—Because it is the most correct mode of paying the men.

Mr. WOOD: You spoke of the difficulty of getting boys, but if the wages were raised, or the hours shortened, which is nearly the same thing, a sufficient supply would be drawn from other branches of industry?—No; the pits are often a long way from the towns, where alone there are spare boys at all; and, besides, they are not accustomed to the work. There is seldom any supply of labour obtained from other trades, although agricultural labourers do get employment above ground about the pit mouth. Workmen of the same scale of intelligence receive higher wages underground than in other industries. They often get 7s. a day, but 5s. 6d. is, probably, the average, besides a free house and garden, and coal for nothing; and when they are hurt or ill, a doctor to attend them.

By Sir P. EGERTON: I would not allow boys to go down under 12, and my reason is that they get more education in the two years, from 10 to 12, than in all their previous schooling. The practice works well at Seaton Delaval, and I see no reason why it should not do so elsewhere.

Mr. WOOD: Would you make it compulsory for them to go to school?—No, I would leave that to the parents.

Mr. WOOD: Would you in counties where measuring is the system pursued have a legislative enactment to change it? No; but I think they cannot get it so correct as by weight.

Prof. FAWCETT: Do all working colliers object to being paid by measure?—The men of my district prefer weight. I cannot explain why the custom does not prevail everywhere; but if you ask my opinion, I say it is the most correct system, and the fairest for all parties.

Prof. FAWCETT: Should you be opposed to a legislative enactment on the subject?—I do not know about that.

[The remainder of this day's evidence will be continued in our next.]

CHILIAN COAL.—With regard to the probability of a progressional increase in the annual consumption of British coal, Captain GEORGE PEACOCK, F.R.G.S., after alluding to the discovery of true coal in Chili, writes—"The subject of coal is now occupying the minds of our first statesmen as to the comparatively speedy exhaustion of British mines, on the assumption that the demand will go on increasing in the same ratio that it has during the last 25 years. As a practical man, I cannot agree with Mr. Mill that such will be the case, seeing that the recent discovery of coal in various parts of the world, to which we have hitherto been exporting British coal in such vast quantities, will now lessen this export considerably, and I doubt if in future years we shall find an increasing demand at all for this invaluable mineral, from British coal mines, particularly now that the problem of burning petroleum as fuel for steamers appears to be solved; and as there seems to be an inexhaustible supply of this simple material all over the world, I, therefore, think that we may safely calculate on the output of coal in Great Britain to have arrived at its maximum, or nearly so, and that the seams of coal known to exist in the carboniferous districts of Great Britain and Ireland will last for some centuries beyond the calculations of the hon. member for Westminter."

As a justification for his remarks he encloses a letter from the Hon. P. C. Scarlett, now British minister in Mexico, which mentions that the discovery of coal, and its value as to quality, are features in the history of Chili and Peru of extreme importance to them, and of no small consequence to the steam navigation of all the commercial world, when it is considered that the great power of this country has been sustained by the use of British coal in manufactures, and is now adding to that wealth and power by extending this mineral to the use of our Commercial Marine as well as to that of our Government Navy—the discovery of it in Chili is a subject full of interest, and may lead to the most astonishing results. In the "Journal of the Royal Geograghical Society" it is remarked that it had been stated by geologists who had visited the coal formations of Chili, previously to the arrival of the Peninsular Steam Navigation Company's steamers on the coast, that there was no true coal in the country, only lignite, and it was left for Mr. Wheelwright and Mr. Peacock to ascertain, by practical experience, that it was true coal, and inferior only to the ordinary steam coal of the North of England. The coal seams of Coloura (near Lota), from whence Mr. Peacock obtained a sample in October, 1840, are now worked on a most extensive scale, and a large coasting trade has been the result, besides supplying the numerous steamers now plying on the west coasts of North and South America."

MANCHESTER GEOLOGICAL SOCIETY.—On Saturday last upwards of 30 of the members and friends of the Manchester Geological Society met at Bacup, for the purpose of enjoying each other's society, and examining the geological features of the neighbourhood. The lower beds of the Lancashire coal field crop out at and above Bacup. The party ascended the hill in the direction of Sharneyford; and, after inspecting the Gannester Mine and quarries *en route*, descended by Denlisgate to the Vale of Todmorden. During the descent some capital sections of the Upper Millstone Grit, which underlies the coal measures, were examined. The party afterwards dined at the White Hart Hotel, Todmorden. The president of the society (Mr. E. W. Binney) occupied the chair, and after dinner several speeches were made, and some matters of practical interest discussed, after which the members returned home by an early train.——The next meeting will be held on Tuesday next, June 26, when a paper will be read "On the Best Method to Produce Coal in a Marketable Condition."

CRUSHING AND STAMPING SUPERSEDED.—As a substitute for crushing and grinding, Messrs. Baume and Mapps propose to submit the quartz to a purely chemical treatment, and with regard to the result it will suffice to state that a piece of quartz that could with difficulty be broken was rendered as soft as well-burned lime in five minutes. The cleavage os the rock was perfectly destroyed, and every particle, to all appearance, set free. In a word, the disintegration was perfect. The great advantage to be gained by this process is its cheapness. We are assured by Mr. De la Baume that the necessary chemicals will not exceed the cost of $1 per ton. The plan is to roast the ore in a perpetual furnace, after which it is subjected to a chemical bath, which completely disintegrates the rocks. In the composition of this bath consists the invention. If successful, its advantages will not alone be felt in the saving of the cost of reducing ores, but also in more effectually extracting the metals from the ore. It is well known how large a proportion of the metal is lost from the rock being imperfectly crushed. It is true that the particles of rock when reduced to sand are still capable of infinite division, but in the stamp process this work is more or less imperfectly done, and the particles of gold and silver are carried away in the particles of rock that do not become sufficiently reduced to set the metal free. This new process promises to set the metal free at once, there being little grinding necessary, more than to properly amalgamate the metals with the quicksilver. More than this, it would seem from the imperfect experiment we saw that there must be a great gain in the work of amalgamating—the rock being rendered so soft that a few turns of the arastra or the pan will be sufficient to reduce it to a pulp. Mr. De la Baume has been experimenting three years to find this process, and now, by the help of Mr. Mapps, he flatters himself that it is obtained.

PATENT CASE—WHITE'S LUBRICATING CANS (S.L.V.).—On Friday and Saturday last the Court of Common Pleas, under the presidency of Mr. Justice KEATING, was occupied in adjucating on the case of WHITE *v.* FENN, for an alleged infringement of the plaintiff's patent for "Improvements in Lubricating or Oil Cans or Oil Feeders, and in the mechanical arrangements for regulating the flow of oil therefrom." Mr. F. W. CAMPIN (who was with Mr. C. G. MEREWETHER), for the plaintiff, and Mr. MANISTY, Q.C., Mr. GARTH, and Mr. THEODORE ASTON, for the defendant, were the counsel engaged in the cause. The case, as presented to the Court, showed that the plaintiff (who resides at Trinity-street, Southwark, is agent for PRELLER'S patent driving bands, and the patentee of the oil feeders referred to) some ten years since became impressed with a sense of the great importance of efficient lubrication to the proper working and economising of wear and tear of machinery, and at once set to work to produce a lubricating can, provided with such mechanism or apparatus that when used to introduce oil to the bearing and working parts of machinery that object should be readily effected, and in such manner that if a single drop of oil should be all that should be required that drop only should be supplied, or if a copious supply were desired that should with equal facility be obtained. After much experimenting, the plaintiff at length succeeded in producing an oil feeder having arrangements for securing the above-mentioned objects, and this effort of his invention received some amount of public patronage, but after awhile was found to be defective in several important particulars, and thus led to his devising further improvements, for which he secured Her Majesty's letters patent, under the title before stated, such improvements consisting in the use of a simple air-tight cap or cover for the oil can, by using a lining of leather or cork; an S-shaped handle to facilitate the steady handling of the can when in use, and near the handle a vertical tube, with a plunger, descending ing into the body of the can, and passing through it, provided with a button or top, to which the thumb of the operator may be readily applied. Such piston or plunger having an air-passage alongside, as by a groove from top to bottom of the same, and a part at the bottom to act as a valve, to stop from time to time the lower end of the plunger tube, and thus prevent the entrance of air when necessary; there being situate below this plunger, and in contact with the end of it, a lever of the first-class, the fulcrum of which is a strong wire, turned up or down at each end, passing across the interior of the can, and at each end firmly soldered or secured to the sides, in which case the lever would move up and down on this fulcrum; or, preferably, the fulcrum wire is soldered or firmly secured to the lever, becoming in effect part of the same, and then the ends of this fulcrum are made to turn in brackets, firmly soldered to the interior of the sides of the can. That end of such lever not in contact with end of the plunger being provided with a valve faced with leather, the maintenance of such leather facing in proper position being ensured by the metal of the valve being turned over, so as tightly to clip and hold the same in its place. The valve is a flat piece of metal slanting forward, and closing the end of a small tube correspondingly slanted, but without any regular valve seat, which tube forms the entrance to the spout of the can, by which the oil is supplied from the body of the feeder. The due action of the lever is secured by a spring attached to the lever and to the car, *but not placed around the plunger and inside its tube, an arrangement found by the plaintiff to be troublesome in construction and defective in action*, as it renders the resistance of the plunger to the pressure of the thumb too great when using the can for lubrication.

The defendant was charged with having sold, with full knowledge of the existence of the patent, oil cans which substantially infringed the patent. They contained a plunger having, not an air groove along it as in the plaintiff's drawings, but one so loosely fitted as to leave an air space along it. The spring was applied in the same manner to the lever, but was of the watch-spring kind; and the fulcrum was fitted in brackets, as in the plaintiff's patent oil feeder. The other points of the patentee's arrangements were not imitated by the defendant.

As usual in patent cases, the defendant not only pleaded not guilty of any infringement, but also impeached the validity of the patent, on the grounds that it was not for a "new manufacture;" that the patentee was "not the true and first inventor;" that no proper specification had been filed; also, that there was a want of utility in the invention, and in support of these pleas enumerated 22 objections to the patent. The evidence for the plaintiff was to the effect that the defendant had on several occasions sold lubricating cans of the description above stated, and that the invention was new and useful. One witness, Mr. PURVIS, chief foreman at the Royal Dockyard, said that previous to the introduction of the plaintiff's patent cans at that establishment several lubricating cans had been tried, and all had been considered defective; plaintiff's, however, answered admirably, and continued in use at the present time. On behalf of the defendant, it was attempted to be proved that some material features of the invention had been suggested to the patentee by artizans employed by him, and that some of the principal points of the patent arrangements existed in a lubricating can patented by a Mr. BURDESS some years before the date of the plantiff's patent; also in an article made by a person named WAGSTAFFE, and in the cans previously made by the plaintiff, as before stated. The jury, however, found a verdict in favour of the plaintiff. The Judge, as is commonly the case in Patent Trials, reserving power to the defendant to move the Court in *Banco* in regard to legal points as to the patent and specification.

FOREIGN MINING AND METALLURGY.

A new company for the production of all kinds of rolled and merchants' iron has been just established under the title of the Borinage Rolling Mills Company. The capital, which is 40,000*l.*, has been almost entirely subscribed, and the statutes have been approved by a recent royal decree. The contract for the delivery of locomotives for the Belgian State railways, to which we referred last week, has brought again on the tapis the question of adjudication, and the coalition of makers. A single Belgian house, the Evrard Company, tendered at the rate of 2315*l.* per locomotive, while the Creuzot Works tendered at 2308*l.* per locomotive, showing a difference of 7*l.* per engine in favour of the French establishment. Some industrials, who support free competition, provided that it does not turn against them, now urge that the State ought to have adjudged the contract to the Evrard Company. Their principal arguments are that the difference is inconsiderable, and will be swallowed up by the reception of the engines from abroad, and that on the occasion of the adjudication of the works of the Universal Exhibition, at Paris, the French Government did not take into account an abatement made by a Brussels establishment, but accorded the enterprise to a Frenchman. A reform is also asked for with reference to the specifications prepared and enforced in connection with adjudications. The Belgian construction workshops are still tolerably well occupied, and mention is even made of a contract for railway plant concluded during the last few days by a Brussels establishment on Russian account. With this exception, however, there has been no important affair in preparation, and to save industry from future depression a prompt solution of political and financial troubles is imperatively necessary. When this "prompt solution" is likely to be obtained it is, of course, extremely difficult to say. As regards the Belgian coal trade, we may note that regular orders are received in the Charleroi basin for what are known as *demi-gras* varieties. Very few new affairs have been concluded in this important Belgian coal district, but numerous and valuable contracts, secured some months since, maintain activity in the collieries. In the Liége basin some important orders have come to hand, in consequence of reductions made in prices; it is even stated that some industrials of the Charleroi basin have concluded contracts with the collieries of the province of Liége, in consequence of the low prices current in the latter. Coal required for ironworks and industrial establishments continues in much demand in the Mons basin, and prices are firm; there is no change to note in the basin of the Centre. Freights have not varied at Charleroi, but at Mons, while there has been no change for La Villette and Gand, there has been a slight augmentation in the direction of the Lower Seine, in consequence of apprehensions of want of water. The Belgian General Railway Plant Company has commenced the payment of the interest maturing on its obligations June 15. The La Haye Collieries Company will pay, July 2, a first dividend of 1*l.* per share in respect to the exercise 1865-6. The Val-Benoît Colliery Company will pay, July 2, a dividend of 16*s.* per share in respect to the exercise 1865-6. The Herve Wergifosse Colliery Company will pay, July 2, a dividend of 1*l.* 12*s.* per share in respect to the exercise 1865. Meetings are announced as follows:—Ougrée Ironworks Company, June 28, at Ougrée; Monceau-Fontaine and Martinet Collieries Company, June 28, at Monceau-sur-Sambre; Thy-le-Château Blast Furnaces and Forges Company, June 29, at Charleroi; Courcelles-Nord Collieries Company, June 30, at Brussels; John Cockerill Company, July 2, at Liége; and St. Leonard Company for the Fabrication of Iron, Steel, Tools, and Machinery, July 7, at Liége.

At St. Dizier prices have been sustained tolerably well for almost all articles, charcoal-made pig excepted; the price of the latter is nominal, at 4*l.* 9*s.* 7*d.* to 4*l.* 10*s.* 5*d.* per ton. Irons have been generally in good demand. Ordinary rolled iron has made 8*l.* 12*s.* to 8*l.* 16*s.*; ditto charcoal-made, 9*l.* per ton, first class, the scale between works varying from 4*s.* to 8*s.* per ton, according to works, and according to the composition of orders. Sheets have made 9*l.* 12*s.* to 10*l.* per ton, first description, with a scale of 12*s.* to 16*s.* per ton between classes; special irons, 8*l.* 4*s.* to 8*l.* 8*s.* per ton, with a scale of 4*s.* to 8*s.* per ton per class. Hammered irons have made 10*l.* 4*s.*, 10*l.* 8*s.*, and 10*l.* 12*s.* per ton, according to works and the mode of fabrication; machine, No. 20, 9*l.* 12*s.*; ditto, No. 21, 9*l.* 4*s.* to 9*l.* 8*s.*; machine, coke-made, No. 20, 8*l.* 16*s.* per ton—the whole in warehouse at the works. The last contracts for old rails have been concluded by continuation at 4*l.* 4*s.* per ton; they are not to be carried out immediately, but at lengthened intervals, some of them being even spread over several years. Notwithstanding numerous sales of old rails recently effected by the Eastern of France Railway Company, the quantity of old rails still existing in its depôts is estimated at 25,000 tons. The Mouzaia Mines Company and the Holzapfel Silver, Lead, and Zinc Mines Company will hold their meetings to-day (Saturday), at Paris. Other meetings are announced as follows:—Huelva Copper Mines Company, June 27, at Paris; Montataire Forges Company, July 2, at Paris; Girardville Collieries Company (United States), July 5, at Paris; Denain and Anzin Blast Furnaces Company, July 10, at Paris.

The Marseilles Gas and Blast-Furnaces and Foundries Company (with which enterprise is also associated the Portes and Sénéchas Mines) has just reported progress for 1865, with reference to the St. Louis blast-furnaces:—"The profit from the St. Louis blast-furnaces has been maintained during the year which has just elapsed. The production of pig has attained a total which had not been hitherto reached—more than 22,500 tons. The cost price per ton has been a little higher, in consequence of the price of coke, of which it has been necessary to obtain a part in the basin of the Loire, and the freight of the minerals furnished by Italy, Spain, or Africa. The sale price has been maintained at the level to which the recognised quality of the pig produced had carried it. St. Louis has thus brought an important resource to the inventory of Dec. 31. At the same time, several establishments showed themselves disposed to enter into competition with the St. Louis undertaking. The anticipations of the directors on this head have been realised; more or less similar products have presented themselves on the market, and as the new comers naturally wished to secure a position, the inevitable result has happened, and the downward tendency which appeared in prices has become more decided in the first few months of the current year. It is to be feared that the situation will deteriorate still more, but the directors do not propose to overload the market, and to encourage a great depreciation in prices. They will, on the contrary, regulate their production by the demand of the public, not only for the pig produced, but for the coke manufactured by the company's establishments. However this may be, the directors have endeavoured for five years past to hold themselves prepared for all the various chances which the future might reserve for them. They have first put the establishment in a position to meet all the orders which it might receive, the blast-furnaces having been re-constructed and enlarged, while a more powerful blowing apparatus and new boilers have been installed. During a second period attention has been especially directed to the partial redemption of the first establishment expenditure incurred. Thus not only did the revenue account of 1865 sustain the cost of the reconstruction of No. 2 furnace, amounting to 1600*l.*, but still greater prudence has been displayed by the deduction from the profits of 4800*l.*, required for the complete redemption of the amounts immobilised since 1860 in the St. Louis Works; this accomplished, the capital engaged in the St. Louis Works at the close of 1865 was exactly the same as at the close of 1860, but it represents in reality a more considerable sum, since the productive power of the blast-furnaces and blowing apparatus has been considerably increased. At the same time, too, that the directors have effaced by successive redemptions the cost of the works, they have collected and distributed under the form of a dividend a part of the profits which the improvements secured by the works undertaken have enabled the company to realise." We shall have something to say about the company's collieries in a future impression.

The production of iron during last year by MM. Schneider and Co. at Creuzot amounted to 89,000 tons. During the same period MM. de Wendel and Co., of Hayange, produced 104,000 tons of pig. The General Direction of Telegraphic Lines in France recently offered for adjudication a contract for 150 tons of galvanised wire, 5 millimetres of an inch in thickness. MM. Boignes, Rambourg, and Co., of Fourchambault, obtained 100 tons, at 21*l.* 7*s.* 7*d.* per ton, and the Châtillon and Commentry Forges Company obtained the other 50 tons, at 21*l.* 4*s.* per ton. In March, 1866, similar wire was contracted for at 21*l.* 12*s.*, and in December, 1865, at 22*l.* 4*s.* 6*d.* and 22*l.* 8*s.* per ton. The balance of profit realised last year by the Asturian Mining Company was 27,304*l.*, or 6777*l.* more than the corresponding amount for 1864. After the application to the reserve fund of a sum of 3461*l.*, and the appropriations of shares of the profits to the collective amount of 3844*l.* to the directors, commissaries, and general manager, there remained a sum of 20,000*l.* available for distribution on the 26,000 shares, or 1*l.* per share. The dividend for 1864 had been only 16*s.* per share. The company has also repaid 200 obligations of 20*l.* each, besides making some notable redemptions.

Chilian copper has given way slightly at Havre. The sale is mentioned of 25 tons, with delivery at the end of September, at 85*l.* per ton, and of 10 tons to be delivered in the second fortnight of August, at 84*l.* per ton, Paris conditions; a small lot of about 2½ tons of Lake Superior has also found a purchaser at 116*l.* per ton, Havre conditions. Affairs have been insignificant and prices have been feeble at Paris. English copper has made 86*l.* to 87*l.*; rough Chilian, 84*l.* 10*s.*; and Corocoro mineral, 86*l.* 10*s.* per ton. There has been nothing very remarkable to note on the German markets; affairs have been generally limited to the requirements of consumption; the prices indicated in former reports have been nominally maintained. A price of 45 fls. for Banca tin continues to be maintained on the Dutch markets; at this rate about 1600 blocks have changed hands, but in larger transactions the article may be obtained at 44½ fls. The Hamburg market has been rather more feeble, and prices have, consequently, slightly retrograded. The Cologne market is in a very indecisive state, transactions being limited to the requirements of consumption. The Stettin market has been quiet. At Paris the article has remained without animation, and affairs have been almost *nil*, Banca making 83*l.*; Detroit, 81*l.*; and English, 84*l.* per ton. At Hamburg soft German lead has made full prices; the market is, however, very quiet, a circumstance which must be attributed to the scantiness of stocks. At Rotterdam soft German lead is held firmly, at 12 fls.; as regards other German descriptions, prices vary from 11⅛ fls. to 12 fls. The Cologne market is sustained, and prices have slightly profited from transactions concluded for export. At Paris business in lead has been very quiet, and prices have been almost nominal; rough French has made 20*l.* 10*s.*, and Spanish and German 20*l.* 12*s.* to 20*l.* 16*s.* per ton. There has been but little business in zinc on the Hamburg market, and prices have displayed a downward tendency. The importations during the first five months of the last five years (and the stock on June 1) have been as follows:—

	1866.	1865.	1864.	1863.
Imports to May 31.....Centners	188,000	174,000	239,000	90,000
Stock, June 1	45,000	35,000	6,000	81,600

This table shows an augmentation of 10,000 centners, or 500 tons, in 1866, as compared with 1865; and if to this total we add the 335 tons forming the increase of the stock at London during May, we arrive at the total of 835 tons. This augmentation, coupled with political complications, has not a little contributed to

the reaction which has appeared in this metal for some time past, and which is all the more marked since speculation remains completely inactive. Silesian zinc has given rise to some affairs on the Paris market; some sales are mentioned with deliveries in the middle of July at rather drooping prices; at present the article is worth 21*l.* 10*s.* The Stettin market has been very quiet; prices have been nominal.

REPORT FROM SCOTLAND.

GLASGOW, JUNE 20.—Pig-Iron warrants have been offered plentifully this week, and on Monday a considerable lot was offered under pressure for immediate cash. Prices immediately receded, and when the parcel was cleared off at 50*s.* 6*d.*, they took an upward start, and closed at 53*s.* They have since receded a trifle, again recovered, and there is a tendency to firmness and to advance. The shipments are being helped by the low quotations, and this week amount to 13,820 tons, against 13,240 tons in the same week last year. This is recovering the lost ground a little, and as prices are likely to advance, owing to a threatened lock-out in the Airdrie district of the colliers, miners, and other workers at the blast-furnaces in the neighbourhood, the shipping demand will be stimulated under the fear of buyers having to pay more money for their warrants; indeed, 54*s.*, a month, has been paid already. To-day a private meeting of the Scotch makers of pig-iron was held here, at which it was resolved to reduce the make by one-fourth, and when this fact became known on 'Change prices advanced to 53*s.* 6*d.* cash, with buyers over, and, with no adverse circumstance intervening, further advances are likely to succeed. The miners and other workers at the Calder, Carnbroe, Langloan, Summerlie, and Gartsherrie furnaces (forty-four in number) have been notified of a reduction on their rate of wages of 1*s.* a day, and the masters have signified their intention of damping out their furnaces rather than pay more. The men, at a meeting, instead of accepting the reduction, resolved to work only four days a week, with the view of keeping down stocks to a point that will render a lock-out next to impossible. What the masters will do remains to be seen at the end of the fortnight. Malleable Iron is in the same unsatisfactory state as for some weeks past, with a lessening demand. There is next to nothing going into warehouse, and what is is necessitated to keep the gearing in motion. Second-class brands have been lowered to 7*l.* 10*s.* to invite orders, but buyers say they can purchase on easier terms even than that, South. Founders are doing a quiet trade, and there is a probability of the general resumption of business at the locked-out establishments in the course of next week. Coals are very firm in price, and the threatening attitude of the colliers keeps them well up. The shipments for the week were 18,230 tons, against 23,530 tons same week last year.

The Miners' National Association hold their half-yearly meeting here. The proceedings opened yesterday, when delegates were present from Lanarkshire, Ayrshire, Stirlingshire, Fifeshire, Lancashire, Yorkshire, Northumberland, Staffordshire, Derbyshire, and Nottinghamshire. The chair was occupied by Mr. Alexander Macdonald, the secretary to the Scottish Miners' Association, and president of the Conference, who said he had great pleasure in meeting and welcoming so many brethren from the south of the Tweed, and he was glad to say that one of the disturbing elements of the association had been removed in the renewal of its connection with Staffordshire and St. Helen's. It has received increased vigour in the addition to its ranks of Derbyshire and Nottinghamshire. In Scotland additions were being made in a very satisfactory manner. The financial position was also satisfactory. Many of the reports presented by the delegates contain complaints as to the inefficiency of the present system of Government inspection. In the president's opening address reference was made to the recent explosion at Dukinfield, and after some discussion on the subject it was resolved to petition the House of Commons and the Select Committee on Mines for a Government enquiry into the cause of that disaster.

The lock-out in the shipbuilding yards on the Clyde has ceased, the masters having opened their yards at the request of the non-society men, who signified their willingness to commence work on the employers' terms; a large number of hands have gone in, and it is expected by next Monday the in-going will be general. There has been a launch of some interest this week, that of an iron sailing barque, of the following dimensions:—Length, 151 feet; breadth, 27 ft. 6 in.; depth, 17 ft. 6 in.; register tonnage, 500. She was named the *River Clyde*, and has been built for the copper ore trade. Her owners are Messrs. Hargrove, Ferguson, and Co., of Liverpool.

REPORT FROM MONMOUTH AND SOUTH WALES.

JUNE 21.—There is no indication of the suspense which has of late characterised the Iron Trade being removed until after quarter-day; in fact, it is problematical whether any improvement will then take place, unless the Money Market becomes easier. Makers appear to have made up their minds for a somewhat prolonged existence of the present quietude, which buyers do not at all seem disposed to disturb, as they evince a reluctance in giving out even those orders that are of an exceptional pressing character. Taking the transactions which have been done on home account during the past fortnight as a criterion, it is useless to look to the home market for anything like activity for some time to come; and as most of the old contracts, which are now keeping the works fairly going, are becoming greatly reduced, it is quite natural that some anxiety should be experienced as to what the future of trade with the foreign markets will be. The shipment of railway iron from the local ports during the present week is rather below what it was during the two or three preceding weeks. Most of it has been cleared out for the United States and Russia, and from both those countries a few orders have been received. The latest advices from New York show that the American Ironmasters' Association has not given up the much-cherished agitation for an increase in the import duties on British iron. The cropping up of this much-vexed question has, in conjunction with the recent heavy failures in this country, checked operations, and the future prospect of trade with America does not look so hopefully as it did a month since. In the demand from British North America there is no change, business continuing steady. Spain has also supplied the district with a few contracts, and so has Russia, but they are not of any extent. With most of the other foreign markets, the present war fever has entirely obliterated all thoughts of commercial pursuits, and should the complications become greater, there is no knowing how far the existing inactivity will extend, so far as regards those countries who are now "merely lookers on." There are some persons who think that the demand from the Continent will be more active now that war has actually commenced. Whether this be so or not, it is pretty certain that matters cannot be worse than they have been for the past month, and all must acknowledge that a competitive trade with peace is much better than a small, uncertain trade with war, and its concomitant drawbacks to all commercial enterprise. The new transactions entered into for Welsh pigs are very limited, and the prospects are by no means hopeful. In the Tin-plate Trade a slight reaction has taken place, but not of any importance, and until present difficulties become more settled, no material improvement is expected. Quotations remain nominal. The demand for steam coal continues active, and the continental markets are taking considerable quantities. Large shipments are also being made to the East, and about an average tonnage is cleared out for the mail packet coaling stations. There is also a brisk demand for the home markets. House coal is in limited request, and the coasting trade is below the average.

In addition to the demand of the miners for an increase of wages, and the irregularity which characterises their periods of working, the masters of the Aberdare and Merthyr districts have to contend against the emigration fever, which, after a short relapse, has again made its appearance. During the past fortnight active preparations have been going forward among the working classes for emigrating to the iron and coal districts of America. A large majority of those who have left, and are leaving, the district are what are called "the best hands." The extent of the movement may be judged from the fact that one religious society alone has sustained a loss this year of about 150 members, in consequence of their emigrating to the United States.

In reference to the scarcity of labour, and the high rate of wages paid to miners in the Aberdare and Rhondda Valleys, Mr. Warington W. Smyth has written the following letter to Messrs. Nixon and Co., who had stated they had been informed that great numbers of Cornishmen were emigrating to America for employment, whilst there was plenty to be had in the Aberdare Valley—"I am obliged to you for the information given in your letter, and it is a matter of surprise to me that you should meet with any difficulty in obtaining plenty of men, when I see what high wages can be made in your pits. Why, it pays a young man better to cut coal with you than to be an officer in the army or navy or to be a curate in a church; and as you give your workings plenty of wind, which, with your furnaces and your great ventilating machines, there is nothing to complain of with respect to unhealthiness of occupation. There are thousands of good fellows in our tin and copper mines who work hard, and often in very poor air, who would be glad enough if they could make but half of the amount which an industrious man is able to insure himself in some of your steam coal collieries.—I am, dear Sir, yours truly, WARINGTON W. SMYTH."

For a long time have the ironmasters, colliery proprietors, and other parties engaged in the staple trades of South Wales, urged the necessity of a narrow-gauge rail being laid along the South Wales Railway. Their claims have been repeatedly advocated in the columns of the Journal, and we are, therefore, glad to find that at last there is a prospect of a step being taken in the right direction. The iron and coal proprietors of the Ogmore Valley finding themselves shut out by the broad gauge from the eastern ports abutting on the South Wales Railway sought for powers to lay down an independent narrow gauge line to Llantrissant, and thence to Cardiff. This was opposed by the Great Western Company, who stated it to be their intention to lay a narrow-gauge line, in order to accommodate the traffic of South Wales. The necessity of a narrow gauge was fully acknowledged, but the committee considered that it would be only fair and just to allow the Great Western Company to lay down the required gauge themselves, without being subjected to the competition of the proposed new line between Llantrissant and Cardiff. The result was, that the committee refused to grant the powers sought for, but on the express understanding that the Great Western shall lay down the narrow gauge along the South Wales Railway from Llantrissant to Cardiff before the close of 1867.

The arrivals at Swansea include—The William Turner, from Channael, with 680 tons of copper ore, for H. Bath and Sons; the Ville de Bordeaux, from Nantes, with 240 tons of iron ore, for Wm. Crawshay; the Vencedora, from Cobija, with 600 tons of copper ore, 5 tons of tin in bars, 77 tons of copper (Barrilla) ore, and four bundles of native copper, for H. Bath and Sons; the Anne Wood, from Tongoi, with 180 tons of copper regulus, for the Cobre Mining Company; 436 tons of copper regulus, for Richardson and Co.; and 60 tons of copper ore and 14 tons of copper regulus, to order.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

JUNE 21.—The Derbyshire matters remain in the same state as noticed last week, the ironworks being kept fully going, and in that respect showing a marked contrast with most of the iron-producing districts in nearly all parts of the country. The demand for coal also continues brisk, and a large tonnage is being forwarded by the Midland from Clay Cross. At the other collieries in the neighbourhood business generally is good, and one or two of the new collieries are nearly ready for commencing to draw. Amongst them are the Devonshire Silkstone, which is now completed, and the top work all but finished. The colliery has been a great success, so far as sinking and reaching the coal is concerned, the work being done in a very substantial manner, and at a comparatively small cost. In the neighbourhood of Sheffield business is rather better than what it has been, and the makers of heavy castings, in particular, are kept fully going. The lighter branches of the staple trade, however, are moderately well off for orders for the Canadas and the States. The dispute between the Sheffield file manufacturers and their workpeople, after lasting about sixteen weeks, has terminated, the men going in at the old prices, and the masters agreeing to go through the price list, to equalise it as far as possible. As usual, the dispute has led to the introduction of machinery, by which files can be made as well as by hand.

In South Yorkshire the manufacture of iron is by no means brisk. At Elsecar and Milton the puddlers are kept on full time, but the larger portion of the make goes into stock. The merchant and boiler-plate mills, however, are far from being kept fully going. In the same locality the coal pits are well supplied with orders, whilst the men employed at Earl Fitzwilliam's extensive collieries, not being connected with the Union, have long reaped the benefit of continued work, and are in as prosperous a state as any body of miners in the kingdom. The demand for steam coal continues good, and a very large tonnage is being forwarded to Hull and Grimsby, and there shipped for Fredericksund, Elsinore, Copenhagen, Cronstadt, and other northern ports. House coal is also in good request, both for home and foreign consumption, so that, considering the season, trade was scarcely ever in a healthier state. For Lancashire and other parts of the country, slack meets with an immediate sale for engine-fuel and coke-making purposes. At one or two of the collieries there has been a slight interruption to business, owing to the bursting of the Aire and Calder Canal, about a mile from Barnsley, by which traffic by boats has been suspended.

In the North Riding of Yorkshire business continues rather quiet, but there is some prospect that as the war on the Continent advances a considerable number of foreign orders will reach several of the iron-making establishments in England. Two new furnaces have been formally tapped, amid considerable rejoicings, in the Cleveland district. The place is known as the Cargo Fleet Ironworks, the site occupying more than 40 acres, and the name of the enterprising firm Swan, Coats, and Co.

At several of our collieries preparations are being made to put down COAL-CUTTING MACHINES, the most popular now being the Kippax, which is worked by water-power. It is capable of cutting 15 yards 4 feet deep per hour, is self-acting in all its movements, uses 30 gallons of water per minute, and makes 15 strokes in the same time, at 300 lbs. pressure. The groove made by the tool is only 3 in., so that very little small coal is made, the piece being so bored as to fall in larger blocks than is the case by hand. One great advantage of the machine is, that by it the coal can be worked upon the "end," and as the miners appear to have a growing disinclination of boring by hand, any machine that will do that laborious part of the work will be welcomed by masters and men alike. At Messrs. Locke and Waddington's, where the machines have long been in use, the coal is bored at a cost of 5*d.* per ton less than by hand labour. On the Lincolnshire side of the Trent there is a good business being done at most of the works. The Frodingham Company have only one of their furnaces in blast, the other being under repair, but it is expected that it will be ready for lighting shortly.

The question of the EXHAUSTION OF OUR COAL MINES is still freely discussed in most of our colliery districts, and a good deal of satisfaction is evinced by all persons connected with the trade at the granting of the Commission, as moved for by Mr. Vivian. That the alarm, which was first sounded by Mr. Stanley Jevons, and echoed in the House of Commons by Mr. Mill and the Chancellor of the Exchequer, is far from being well founded is the opinion of nearly all practical men and mining engineers. To-day, whilst examining a geological map of England and Wales with one of the most eminent mining engineers in the county, nothing was more striking than the very small quantity of coal shown on it. Taking a perpendicular line from the Nottingham coal field down to the bottom to Dorsetshire, and then taking the entire eastward of that line, all the strata are newer than the coal measures, the area embracing fully 20,000 square miles. There is also an extensive tract of land between the east of Nottingham and the Yorkshire coalfield, which has not been defined. That in those vast tracts there is plenty of coal at a workable depth there is very little doubt, for although the seams get deeper to the north-east, yet they lie flatter as they go in that direction. In Belgium the coal is reached through the new formations at a comparatively moderate depth, and there appears no reason why in the South of England the same might not be the case, by the same thinning out of the lower formations. Another point, of which much has been made, is that coal cannot be worked at a greater depth than 4000 feet. That calculation is made by Mr. Hull, on the ground that although below that depth there are hundreds of miles strewn with coal, the increase of temperature is an "insuperable barrier" to going deeper. On the other hand, Mr. Pease, a large colliery owner, stated in the House of Commons that it was a popular fallacy that as you increase in depth you increase in heat. "The heat," he says, "does increase to a certain depth, but beyond that point it has been proved by experiments in the mines in Cornwall that the heat does not increase; therefore, I contend that there is no limit to the depth you can go." That opinion is shared in by most practical men; at least to a considerable extent. With regard to the commission itself, mining engineers are agreed that it should most certainly take a practical turn. Geologists and engineers may meet, and a vast body of evidence be taken down, yet that will not settle the great question involved. To be of any avail, actual borings must be made in certain localities. The subject is one of national importance, and ought to be approached in no niggardly spirit. The only practical method, so far, is that which was given to me to-day by the mining engineer to whom I have alluded. He thinks that, seeing no private person or persons are likely to spend a quarter of a million more in sinking a shaft for the purpose of obtaining the information required, Government should be at the expense of boring. To avoid all chance of favouring any individual, there are plenty of Crown lands which might be tested; and if, as there is good reason to believe, that coal should be found, then the public would be the gainers, in more senses than one. For that purpose, there could not be a more opportune time than the present, when the Chancellor of the Exchequer has a considerable surplus, and which, in the belief of the exhaustion of our coal mines in something like 100 years, and the termination of England's greatness, he proposes to apply to the reduction of the National Debt. Surely it would be better to spend a portion of it in testing whether there are not vast deposits of coal in the South and East of England at a workable depth? If, as is believed, coal should be found as stated, the public mind would be set at rest, and England would have an increased lease of greatness. But nothing at all satisfactory can be done unless by actual sinking, and that can only be done, as it ought to be, at the cost of the Government. The solution of a question of such vast importance ought to be of a thoroughly practical character, and to have it so there is only one method, as already stated—by sinking.

Most of the new collieries on the Erewash will be in work during the present season, when the production of coal will be increased about one-fourth. The most important new colliery on the Erewash is the one at Morton, and this will yield a very large increase in the production of the Clay Cross Company. There is a branch railway from the pits to the railway of the Erewash, which will afford an opening to all the principal markets. The Shirland Colliery Company will soon be in operation. The railway which has been made to accommodate the colliery Company can also be made available for other pits, which are talked of. The Tapton Coal and Iron Company are pushing forward their operations at Lockeford to clear the mine of water; but, though they are going on satisfactorily, they have yet to do a good deal before they will be able to get coal. The affairs of the Chesterfield and Midland Silkstone Colliery Company are still in Chancery, and there is little hope for any division of profits for the shareholders. The mine and plant is burdened with a mortgage debt amounting, besides costs and interest, to 10,000*l.* A finance company are the mortgagees, and the money was lent after a valuation had been made of the mines and the plant. The prospects of the Staveley Company are very encouraging, and the shareholders may count safely upon good dividends. The new arrangement made by the company with the Midland, for working all the mineral traffic from the pit's mouth, is going on satisfactorily, and it has been said by those who know, but I will not vouch for the positive accuracy of the statement, that it will save the Staveley Company 20,000*l.* a-year; but that it will save a very considerable sum is certain. It is intended to erect large coke works in the Dronfield Valley. This is in consequence of the Chesterfield and Sheffield Railway, now making, affording an exit from the neighbourhood to the markets of the kingdom. There will be an immense consumption for Sheffield alone, which will be largely increased on the completion of several new works in Sheffield. The Dronfield coal makes a coke remarkably well suited for the Sheffield trade.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JUNE 21.—On the whole, the feeling of the Iron Trade is a shade more cheerful. There is a pretty general idea that orders are being withheld in the hope of a possible reduction of prices at the Preliminary Quarterly Meeting, to be held in Birmingham on Thursday next. There appears almost a universal agreement amongst those who decide upon the trade list prices that no change will be made at the meeting. It is true that the works are, as a rule, not making much more than half-time, but it is also clear that a reduction of the price of manufactured iron, which can by possibility exert any sensible influence on the demand, is not possible without wages being reduced, and the trade is not prepared to fight the battle just now, nor at all, should trade recover and enable them to pay the present rate of wages. The only persons who advocate a reduction are the smaller masters, who having sought for orders by accepting lower rates, and finding that with wages at the present amount it is a losing business, would be glad to induce the leading ironmasters, who adhere to the list, to reduce the price, and fight the battle with the men for a reduction of wages.

A failure, which has been talked of for some few weeks past as probable, has at length taken place. It is that of Mr. Thomas Rose, of the Millfields Ironworks. Mr. Rose was the senior partner of the firm of Rose, Higgins, and Rose, which failed in 1857. He commenced some years ago to manufacture puddled bars at the Millfields Works. His liabilities are said to amount to nearly 40,000*l.* It is said that the producers of hematite pig-iron and native makers of pig-iron are creditors for large amounts. It is stated that an assignment has been made to Mr. Harvey, banker, of Longton, in North Staffordshire, and Mr. Samuel Dickinson, agent to Mr. Schneider, the well-known manufacturer of hematite iron. It is feared that other failures may follow as a consequence of this, but there is no reason to think that any large concern is involved, Mr. Rose is a director of the North Staffordshire Iron and Coal Company.

It is highly probable that the war in Europe, whilst it will create a military demand, will reduce the production of iron in Prussia and elsewhere; and the disarrangement of affairs which the failure of the Agra and Masterman's Bank has produced will be temporary, and India is likely to want large quantities of iron. The wise course appears to be to go on quietly, content with a reduced production for the present, until it shall be seen what course political and commercial affairs shall take. Business men earnestly hope that the late division in Parliament will not lead to a dissolution of Parliament, which would still further unsettle affairs, and would lead to the expenditure of a vast sum of money in a manner which produces nothing but immorality and indolence.

An important case under the Coal Mines Inspection Act as to the liability of a manager to see to the propping of workings, and previously referred to in the Journal, was heard, by adjournment, before Mr. Spooner, stipendiary magistrate, at Sedgley on Monday; but as the magistrate deferred his decision till to-morrow a notice of it shall appear next week.

The Potteries will be the scene of a great gathering on Monday next, when the Prince of Wales is to lay the first stone of a new infirmary for North Staffordshire. Great difficulty has been experienced in discovering a site free from the danger of being undermined, but it is hoped The Mount, an eminence near Newcastle, is exempt from this drawback.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JUNE 21.—The Coal and Coke Trades here continue, on the whole, pretty good; the demand for coke is, indeed, excellent, and the same may be said of the steam coal and manufacturing coal trades, but the gas coal trade is rather slack, as is generally the case at this period of the year. The Iron Trade is, as might be expected from the untoward state of commercial and political affairs, extremely dull, and the iron makers, therefore, may be expected to shorten sail very considerably shortly. It is sad to think that in the midst of all this strikes should still continue. At Walker, the mill-men have been striking some time, and some furnaces have been blown out there, and this example will shortly be followed at many other places. A number of men in the building trade have also been on strike some months, but in the present state of affairs new works will, of course, be postponed. The sailors at Shields, too, are out on strike, so that it is plain the striking mania is not checked yet by the state of commerce.

The Northumberland Docks have been so much crowded lately with large ships, loading steam coal, that a cry has been raised for more room, and the old scheme for making deep water docks at the Low Lights has been revived, and this will, without doubt, be carried out sooner or later. The formation of the piers at the mouth of the Tyne continues to be carried on with unabated vigour, and also the general improvement of the same river. The temporary bridge over the Tyne, at Newcastle, is now nearly completed, and the removal of the old one will be shortly commenced. The model of the bridge to be erected in its place has been shown in the Gateshead Exhibition, where it has proved an object of great interest. The bridge will be an immense improvement on the old one, not only in appearance but in practical utility; and as the centre is provided with a drawbridge, vessels will have access to the upper reaches of the river, which will prove a great boon to the manufacturers in that district.

The works at Wallsend, for the drainage and working of the Tyne collieries, are making rapid progress. Several boilers of the largest dimensions yet tried in the coal trade are now in position, and the other erections are rapidly progressing, including two large chimneys, and part of the engines themselves have also arrived. As this is the most important work, in connection with coal mining, which has been in progress for many years, they are watched with the greatest interest; and while there is no doubt that the works will prove successful, and a large area of excellent coal will be made available, yet the extent to which the drainage will extend is a subject of much interest, and various opinions are expressed on this part of the subject. All this, however, will be cleared up when the engine gets fairly to work, but this cannot be expected to take place during this year.

The Northumberland and Durham Miners' Relief Fund is prospering famously; it is now fairly established, and will make rapid progress throughout the district. A meeting took place on Monday of the most pleasing kind, being the third anniversary of the Walbottle branch of the society. This is one of the most thriving branches in connection with the society, the total number of members at present being 255, being an increase of 66 members during the past year. The owners of Walbottle Colliery, and those of 56 other collieries, have agreed to subscribe 20 per cent. on the amount subscribed by their men. The total number of members now in the society is 8000, and the amount collected during the past four years has been 6660*l.* 2*s.* 5*d.*, and the expenditure 3804*l.* 6*s.*, leaving a balance in hand of 2855*l.* 16*s.* 5*d.* The success of the society is now complete, and one of the latest and wisest measures yet adopted by the executive has materially conduced to this—that is, the arrangement by which Mr. A. Blyth devotes the whole of his time to the business; he is an able and efficient officer, and by his efforts, backed by able assistance, the final success of the scheme is now certain.

NEW BLASTING POWDER.—An improved gunpowder, applicable alike to mining and to the purposes of warfare, has been invented by Mr. G. A. Neumeyer, of Dobitz, Saxony; it is of a comparatively harmless nature when ignited under any other conditions than those in which it is to be employed, is cheaper than ordinary powder, and, on ignition, will evolve much less of the obnoxious vapours than are produced by the ignition of the ordinary powder. For this purpose about 75 parts by weight of saltpetre are mixed with about 18·75 parts by weight of charcoal, and about 6·25 parts by weight of flowers of sulphur, to form 100 parts of gunpowder. The charcoal is by preference prepared in the following manner:—Pieces of birchwood are first ignited, and are then immediately placed in a receptacle, which is closed hermetically. The charcoal thus obtained is then soaked in soda-lye, and is dried upon canvass strainers; it is then reduced to a powder, and is mixed or incorporated in a moist state with the other ingredients in about the proportions above mentioned. The mass thus produced may then be treated in any known manner for converting it into a granular, pulverulent, or solid form. This powder, when

ignited in an unconfined space burns quietly and slowly without any explosive action, but if ignited in an enclosed space it exerts as great an exploding force as an equal volume of ordinary powder, and as its specific gravity is considerably less than that of such powder it is, of course, less expensive; it will never ignite through pressure or friction, and it is, therefore, less dangerous than ordinary powder, and as the proportion of sulphur employed is much less than in the latter, it follows that proportionately less noxious vapours will be generated by its explosion, which is of great importance in mining operations.

DEVELOPMENT OF THE IRON TRADE.

In the Journal of June 9 we published the first part of the paper on this subject, as read by Mr. JAMES ROBERTSON, of Bankside, at the June meeting of the London Association of Foremen Engineers, and now give the concluding portion:—

The steam-engine, as applied to navigation, had perfectly succeeded on the rivers of England, Scotland, and in crossing the Channel, and the thought arose that to these triumphs might be added that of passing from continent to continent, from the Old World to the New, from the hemisphere of the West to the renowned and ancient hemisphere of the East; the union of the two great Anglo-Saxon people, speaking the same language, connected, as it were, by affinity of thought, by equal capacity, energy, and intelligence. Attention was, indeed, now seriously turned to ocean steam navigation to uniting New York and Liverpool by a great commercial bond. By many this was thought probable, by many more impossible. The great difficulty which stood in the way was the finding or constructing a vessel capable of carrying sufficient coals for the passage—that is, sufficient in addition to her stores and passengers, for the economy of fuel had not made those advances which it has since done. The various forms of marine-boilers had not been dreamt of, or, if dreamt of, had not been put in practice. Super-heaters were unknown, and the engine was large in proportion to the capacity of the ship. By the year 1819 the problem of the possibility of an ocean voyage across the Atlantic had been solved by an American vessel of 300 tons, called the *Savannah*, and which made the voyage from America to Liverpool in 26 days. Then steam-power was only auxiliary, and her chief progress was as a sailing vessel. In 1829 two voyages were made by a steamboat called the *Curacoa* between Holland and her Indian colonies; but it was not till 1836 that the great project of establishing a line of steamers between Great Britain and America was first announced. In April, 1838, the *Sirius* started from London for New York, where she arrived in 17 days, and was thus the first steamer which crossed the Atlantic from Britain to New York. In the same year the *Great Western* followed the *Sirius* (April 22). She sailed from Bristol, and made the passage in 15 days. About this time (1838) a plan was formed and laid before Government by Mr. Samuel Cunard, a Canadian gentleman, for establishing a line of mail packets between Liverpool and Boston, calling at Halifax, and he showed the necessity of receiving liberal assistance from the Government. The project was approved, and a subsidy granted of 60,000*l.* per annum; subsequently this was increased to 100,000*l.*, and afterwards to 145,000*l.* This magnificent and successful fleet of steam-ships had long ago attained a great renown, and deservedly so, as it comprised amongst its number the two magnificent specimens of naval architecture the *Arabia* and *Persia*.

Other lines of ocean-going steam-ships have been established, and allusion need only be made to the Peninsular and Oriental, and the Royal Mail Steam-Packet Companies, as affording every comfort and luxury to those whose necessities or pleasures call them to or from the shores of England. There is not a river, creek, or armlet of the sea where the steam-power of this country has not been shown—from the Severn to the Amoor, from the silent waters of Loch Awe to the Sea of Azof and the Caspian. The rivers of Russia now bear evidence of the progress of civilisation, through puffing little boats, like witnesses out of breath, and eager to tell the story of their birth. The most distant colonies and dependences have been, as it were, brought close to hand, the dangers of the deep lessened, comparative security to life and property has been attained, and the formerly irksome voyage to the Antipodes rendered endurable, if not enjoyable, by the adaptation of modern science. We have the satisfaction of knowing that the maximum of naval architecture for this has been attained in the magnificient, but commercially unfortunate, *Great Eastern*. Contrast that great triumph of mechanical skill, engineering science, and laborious industry with the first efforts of Miller's paddle-boat on the waters of the Forth. Contrast the four stout fellows at the capstan with the engines whose power is indicated by the comparison of 10,000 horses; glance rapidly from the origin to the completion, and say if it be not a dream, that within a space of time comprised by living memory an advancement so great as been accomplished, as life is short and science eternal; say, rather, that science has been born and sprung to full fruition in a day, like the goddess of science, blue-eyed Minerva, who sprung armed for resistance from the brow of Jove. The contrast brings before you weakness and strength, infancy and manhood, chaos and order, ignorance and intelligence, barbarism and civilisation; and this great change dating from the commencement of this century, from the development of our mineral resources, from the application of material to purposes for which before it was deemed inapplicable, is undoubtedly attributable to the progress made in the iron manufacture of Britain.

Besides the paddle-wheel, another discovery has had a vast influence on steam navigation and iron constructed ships: this is the screw propeller. It is not necessary to record the many patents taken out long ago for this invention, or to explain its principles, other than to say that it is simply double-sculling a boat. After the first introduction of steamboats the paddle held its own for some time with undisputed away, till 1838, when Mr. F. P. Smith practically introduced the screw. He had, however, a precursor in Mr. Wilson, of Manchester, who had in 1827 produced a propeller with all but complete success. Wilson's invention was founded on his early experience in sculling a boat at Dunbar when a boy, and that, no doubt, is the true principle of the propeller. Wilson was introduced to the Earl of Lauderdale, who was struck with the importance of the invention, and undertook to bring it under the notice of the Admiralty. The Highland Society of Scotland had the propeller tried at Leith: the day was rough, but the success was undoubted. In 1832 the Royal Scottish Society of Arts tried the propeller, and awarded Mr. Wilson the Society's medal. Despite these successful experiments, the Admiralty did not entertain Willson's invention, and, although it was almost exactly the same as Smith's, Wilson never reaped any reward for his long perseverance. Smith was more successful than Wilson, for the Admiralty adopted his propeller, why does not appear. Smith, like Miller, was engaged in agriculture: he had a farm at Hendon. He tried several experiments in good sized model boats on the Thames and elsewhere. Smith built the *Archimedes*, under Government sanction. She was a 237-ton steamer, with 80-horse power engines, made by the Rennies. This vessel came round to the Clyde; and he (Mr. Robertson) remembered being on board of her. There was a model of her screw propeller on the companion, and it was driven round by the wind, thus showing inversely the principle of propulsion.

About this time Capt. Ericsson produced his invention, and his form of screw was generally adopted in France and America; but many prefer the form adopted by Mr. Griffith as the best as yet discovered. Mr. Bourne, in his Treatise on the Screw Propeller, describes it, and remarks—"The diameter of the screw is the diameter of the circle described by the arms, and the length of the screw is the length which the arms occupy upon the revolving shaft. If a string be wound spirally round a cylinder, it will form a screw of one thread; if two strings be wound upon a cylinder, with equal spaces between them, they will form a screw of two threads; and so of any number. If instead of strings flat blades be wound edgewise round the cylinder, and if each blade has one of its edges attached to the cylinder by welding, soldering, or otherwise, then if a slice be cut off the end of the cylinder there will be only one piece of blade attached to that slice; if the screw be of one thread, two pieces of blade; if the screw be of two threads, three; if the screw be of three threads, and so on of any number." The pitch of the screw is usually made equal to its diameter, or a little more so, and the length of the screw is usually made equal to one-sixth of the pitch.

Great has been the controversy between the partizans of the paddle-wheel and those of the screw-propeller, and many have been the competitive trials. Ocean-going ships, in calm weather and light winds, give about nearly the same results, whether screw or paddle be employed. When steaming against head winds the paddle boat consumes less fuel than the screw steamer, the speed being about equal, notwithstanding the resistance offered by the paddle-boxes to the wind. But it is as an auxiliary to a sailing vessel that the screw finds its greatest employment, especially in our own royal navy and amongst the navies of Europe. The propeller, deeply immersed beyond the reach of the enemy's shot, affords the means of manœuvring the ship whilst under fire, and gives a power of control over her which was unknown in the days of Nelson, and those who made the naval annals of England celebrated in history.

In my second paper on Iron Manufacture reference was made to the impulse it received from the adoption of chain cables in substitution of the clumsy cable of hemp formerly in use; but if that alone gave an impulse to iron production, what has been done now that not only the cables but the ships themselves are iron, their masts and yards of steel plates, and the ships covered with a defensive armour of 5½ and 6½ inch plates, to resist the heaviest fire? Those celebrated ships of yore who won such laurels, not from their powers of resistance, but by the skill with which they were commanded, and the gallantry of officers and crew, would now be shivered, riven, and blown to pieces before they could inflict any mischief on the formidable iron-clads of the present day, armed with guns of a calibre unknown to the first quarter of this century, possessing an accuracy of fire at 2000 yards, which then was difficult at 400 yards, and directed by a scientific skill which, if not altogether unknown then, was at least unattainable, and whilst the power of inflicting damage to an enemy's fleets or forts has multiplied a thousand fold, the sea-going capacity of our modern navy has been augmented and retained, whilst the graceful lines of the frigate have not been abandoned, in such ships as the *Warrior*, *Black Prince*, and *Agincourt*. These are indeed triumphs of mechanical skill of which our age may well be proud. The miner, the puddler, the ironmaster, the steam-hammer manufacturer, the naval architect and artillerist, have all lent their willing aid to the achievement of a great success. The constructors of marine engines must not be forgotten, Boulton and Watt, and Butterley standing first in order of date with those mentioned before Napier, and many others on the Clyde, that now famous river, on whose left bank Watt first saw life, and which has all along maintained, and still maintains, its proud pre-eminence in all appertaining to his great invention. Whilst on the Thames names have become renowned as marine engineers, names whose fame will long be chronicled in the records and progress of that science—Penn, Maudslay, Ravenhills, Rennie, Seaward, Humphrys, Russell, and Dudgeon; and there are other competitors, whose names will soon rank with the first firms, rising into importance by their own merits and the natural expansion of the times—firms who will not only construct the ship but the engine also, the whole structure united, homogeneous and complete.

I will not raise the question started on a late convivial occasion, as to whether the ship is part of the engine, or *vice versa*; but a ship is a ship, whether she be a steam-ship or not, and a marine engine could be put to other work before being put on board a ship. You have all seen a steamer on the river driven by an old locomotive engine placed on board. It may not be inapt to compare the steam-ship to a living thing—the ship the body, and the engine the vital force which enables it to breast and buffet with the waves of the Atlantic, and without which it would be as helpless in the absence of sails as the engine without the ship. Each is dependent on the other, each performs unconsciously its part of the contract. The ship has only to float, the engine has only to work, the rudder has only to steer; the existence or exercise of the functions of each is dependent on the other. The rudder may refuse to steer, and the course of the ship will be endangered, whatever the capacity of the ship and engine. The engine may break down, the shaft or propeller may snap, but so long as the ship continues to float she performs her part of the contract; but if she becomes unable to float, woe betide the best and most powerful engine in the world. Down she may go, like the *London*, with engines still at work, and the engineer at his post of duty. But whether the engine be part of the ship, or the ship part of the engine, or each belong to each other, we should leave marine engineers and shipbuilders to decide. He should say the skipper of the potatoe boat had an engineer's view of this subject when the question was put by a man on the quay—"Do you belong to that boat?" "No; but the boat belongs to me."

He now approached the conclusion of this paper, undertaken on an emergency, written in the course of the leisure of five evenings, a leisure which he had to make, and could ill afford. Written, too, without other books of reference than those which he had at home, and written without that research which it was his custom to bestow on productions of this kind. If his audience had been interested he would be more than satisfied. He had purposely avoided points of difference or mechanical problems, and contented himself with an outline statement of facts, avoiding the merits of theories. Perhaps his hearers had too much of that every day of their lives, and might not think the absence of those vexed questions as any detriment to this paper. He had also avoided statistics, having no theories to prove by them. This paper had necessarily been historical, for the reasons stated in the outset. It was endeavoured to show not only the intention and the progress of invention, but the sort of men by whom it was made, and to present a sketch of the individuals to whom we are indebted for much of the progress of the present day. He had wished to show the process by which the steam-engine became applicable to river steamers and ocean-going ships, and how that progress was connected with the iron production of Great Britain; how the chain of science had been linked together, "like orient pearls at random strung;" how from so small a germ this great giant had arisen; how one science had merged into another; how one discovery had produced a numerous progeny of patents and inventions; and how the inquisitive spirit of man had pursued its enquiries through the range and limit of hidden secrets; how necessity, more than avarice, had been the patron of invention—for the true engineer must have an intense curiosity to stimulate his researches, a curiosity more vital and intense than avarice or revenge.

There still remained for consideration the locomotive engine, the iron road period, and its connection with the iron trade, which he trusted to lay before his fellow-members after a more mature consideration than was possible in the composition of the present paper.

MINING WITHOUT GUNPOWDER.

In connection with mining generally, and with metalliferous mining especially, gunpowder has heretofore been considered almost as necessary as labour itself, but an invention has now been provisionally specified by Mr. Thales Lindsley, of Rock Island, United States, the object of which is the formation of tunnels, and other similar excavations in rock without the employment of gunpowder, or other explosive material. The substitute proposed is, of course, efficient machinery; in this instance it is arranged to cut annular grooves or recesses in the rock, combined with the means for splitting off the isolated portions of the rock remaining between the annular grooves formed by the boring tools; the motive power employed to actuate the said machinery being compressed air. The operation of cutting the annular grooves in the rock is performed by means of a number of chisels set in a revolving cutter-head or frame, placed on the front end of a horizontal bar, and made capable of rotating with said bar, or being disengaged therefrom when required; this bar turns in suitable bearings fixed on the framing of the machine, and is made capable of sliding endwise in said bearings. On one end of this bar is a strong cross-piece or head, forming the ram for driving in the wedges employed for splitting the rock, and on the rear end of said bar a screw is formed. The end of the bar is connected to a strong cross-head, attached to the piston-rods of two horizontal cylinders, securely fixed to, and forming a portion of, the framing of the machine. The end of the horizontal bar passes through a boss or eye in the centre of the cross-head, and is made capable of turning freely or sliding endwise in the boss, and is adjusted and held in the required position by a nut on each side of the cross-head. The piston-rods of the cylinders work through stuffing-boxes in the end of said cylinders, and the pistons are fitted to work perfectly air-tight, and are moved in the required direction by the force of the compressed air admitted into the cylinders. The horizontal bar is turned in its bearings by means of a worm-wheel connected by suitable gearing with a counter shaft, and this counter shaft receives motion from the main or driving shaft of the machine; the relative velocities of these two shafts being varied as required by means of conical gearing. On the main or driving shaft are cranks connected to the piston-rods of a pair of oscillating cylinders, working on trunnions fixed to the framing of the machine, and driven by the force of compressed air. The worm-wheel is fixed on a sleeve or boss, and in this sleeve is fitted a key or feather, made to slide in a groove or channel formed on the screw end of the horizontal bar parallel with the axis thereof, so that the bar can freely slide endwise while being rotated by means of a worm-wheel and gearing in connection therewith. A nut is fitted on the screw end of this bar, and has a worm-wheel on its exterior; this worm-wheel and nut receive motion from a worm or screw fixed on the end of a diagonal intermediate shaft, and said intermediate shaft is connected by suitable gearing to the main or driving shaft. The wheels composing this gearing are capable of being changed, in order to vary the number of revolutions of the nut; the rate of motion of the bar endwise, during the operation of boring, being regulated by the velocity of the said nut. The counter shaft is capable of being thrown out of gear with the driving shaft by a sliding clutch or other suitable devise; and at the same time, by means of the said sliding clutch, the driving shaft is thrown into gear with the nut, the wheels composing this gearing being arranged to work in such a direction, and at such a relative velocity, as to revolve the nut quickly, and move the bar and cutter-head rapidly back free from the portion of the rock being operated upon; and the bar is retained in the required position by means of a pawl or catch on the framing of the machine.

During the operation of boring each of the chisels set in the cutter-head is drawn back in succession by means of a cam fixed just behind the cutter-head, and the chisels are kept in contact with the surface of the rock when released from the cam by spiral springs, or other suitable means. This cam advances endwise with the cutter-head, and receives its motion by means of suitable gearing from the counter shaft. Another cam is fixed behind the cutter-head to operate a chisel set radially towards the central axis of the horizontal bar. This chisel is for the purpose of cutting a channel or water-course in the bottom of the tunnel, and is fixed in the socket of a frame attached to the projecting ends of the plungers of the horizontal cylinders. The frame carrying the chisel advances with the horizontal bar and cutter-head during the operation of boring, and is prevented by said plungers from rotating with the horizontal bar. The feet of the framing of the machine are provided with rollers to enable the machine to be easily moved forward as the tunnel is formed; and in order to fix the machine firmly in position during the several operations wedges or keys are driven tightly between portions of the framing and the sides of the tunnel. The compressed air for actuating the machine is condensed by any efficient means, and is contained in receivers or reservoirs of any suitable form and construction, communicating by pipes and other like connections with the cylinders fixed on and forming part of the machine. The machine when in operation is placed with the cutter-head facing the portion of rock to be excavated. The compressed air is admitted into the oscillating cylinders connected to the main shaft. The cutter-head or frame holding the chisels is thrown into connection with the sliding bar, and is caused to revolve thereby. The boring is continued till the required depth is given to the annular grooves in the rock, the cutter-head and bar are then drawn back, and the cutter-head is disengaged from the bar. The wedges for splitting the rock are then placed in the required position in the annular grooves or recesses formed therein, the pawl holding the sliding bar is thrown up and the bar is released. The compressed air is then admitted behind the pistons of the horizontal cylinders, and drives the head of the bar forcibly against the ends of the wedges placed in the annular grooves or recesses, thus splitting off the portions or rings of rock not removed by the boring tools. The detached portions of rock are then removed through apertures left in the framing and other portions of the machine for that purpose. There are, of course, no difficulties with regard to ventilation, the tunnel being ventilated during the process of excavation by the air escaping from the cylinder and other parts of the machine.

DUKINFIELD COLLIERY EXPLOSION.—It appears that of the 38 killed by the explosion at the Victoria Pit, Dukinfield (one has died since our last report), 16 were married, and have left widows and orphans, 21 were single men, and one was a widower. The orphans comprise 22 children under 10 years of age, eight between 10 and 15 years, and four above 15. Mr. Astley, the lord of the manor, and proprietor of the pit, has generously undertaken to provide for the families of the sufferers. The statement which has been made that 386 lives have been lost in the mine during the last five years is false. The mine in which the accident occurred has only been worked about three years. Including the Dukinfield collieries generally, and not the Victoria Mine alone, 386 lives have been lost in a period of 30 years, during the greater part of which time they have been worked on a very extensive scale. The first witness examined at the coroner's inquest was Isaac Wheelden, the manager, who stated that Mr. Astley took no personal part in the conduct of the colliery. The shaft is 500 yards deep. The ventilation shaft is 340 yards deep, being to the "Black Mine." The workings extend 600 yards from the upcast shaft towards the south, and are on a level. The workings on the north side, 350 yards, had been exhausted, or had been abandoned in consequence of a fault. The workings extend 150 yards westerly, and are on a dip of nearly 2 ft. in 1 yard. They (the colliers) got down it as well as they could. George Phillips, one of the deceased, was the sole underlooker, and had charge of the underground working, with two firemen under him, J. Moores and J. Wirrell, who had to report to Phillips; they employed the remainder of their time in mending faults in the roads. Wheelden was in the mine last a week or a fortnight before the explosion, and went to inspect the furnace at the bottom of the upcast shaft. The furnace had been put there seven weeks ago. There was no furnace before that time. Phillips had measured the quantity of air passing through the mine after this, and reported 16,000 cubic feet per minute, measured by the anemometer, and the experiment extended over five minutes. It had been intended to sink the air-shaft to the same depth as the working-shaft, but that had not yet been done. There was a "brow" leading down from the ventilating or "Black Mine" shaft, 470 yards long, and the bottom of which was 600 yards below the surface of the earth. A communication existed between this "brow" and Victoria pit, and with another called the Astley pit. They were connected by tunnels 9 ft. wide and 6 ft. high. He admitted that there was a level connected with the workings which exploded, in which the gas (or foul air) had been allowed to accumulate. There would be 4400 cubic feet of this gas, and it might under certain contingencies, which the coroner mentioned, be driven into the workings where the miners worked, but it never had been done before this time, and he did not anticipate there was any danger. After the explosion witness went down the shaft and found two doors blown down in the horse level, the air was then going up the shaft instead of into the workings. The wagons were broken in a heap, with other evidences of an explosion having occurred. Believed the explosion took place about 140 yards from the shaft. Drivers in the horse level were allowed to use naked oil lamps, because it was considered safe. The miners were all required to work with locked Davy lamps, and they were not allowed keys if it was known. The levels were 7 feet wide and 4 feet high. As to the cause of the explosion, he believed a brattice had been placed at both ends of the engine brows, and the bulk of the air had thus been turned down the two levels on the dip. This would naturally sweep the gas into the third level, where 4400 cubic feet of gas had accumulated. This gas would be swept into the horse road, and it would explode 140 yards from the shaft, where there was an open Davy lamp, with the gauze off. Martin Burtenshaw and the two firemen were examined, but there was nothing material in their evidence. Mr. J. J. Horsfall, manager of Fairbottom Colliery, near Ashton, immediately on hearing of the explosion went to the pit, taking with him an underlooker, to render what assistance he could. On examining the horse level he found the doors blown down, and a screen fixed in their stead. The roof of the horse-way was very insecure. He went to the bottom of the new mine brow, and along the No. 2 tunnel to the old mine door, and then returned to the shaft. He afterwards examined the mine, to ascertain the cause of the explosion. His opinion is that the gas had accumulated to a considerable extent in the No. 3 level, which was about to be tapped by a new air-brow, and that the air, having been improperly turned in at the lower level, had driven the gas into the new workings, and it fired in the horse-way. It was very unwise and dangerous to allow gas to remain so long, in such a large quantity, in one place. He thinks an hour would have been sufficient time for clearing out the gas. In reply to Mr. Wynne, he expressed his belief that there was no necessity for allowing the gas to remain, and that, after removing it, the ventilation of the mine might have been restored in ten minutes. He was clearly of opinion that the north and south brows had each been bratticed at the end, and the whole body of air and gas driven through to the lights in the horse-way.—The inquest was adjourned until Thursday next.

TESTIMONIAL TO Mr. THOMAS MORREL.—At a meeting of the puddlers, rollers, &c., employed at Messrs. Abbot's rolling mills, Gateshead, Mr. THOMAS MORREL, late manager over the rolling mills in Gateshead, was presented with a massive, richly-ornamented bible, as a token of the high esteem in which he was universally held as a true example of a friend to master and man, upon his leaving those works to enter upon a better situation in his native county, Shropshire.

TESTIMONIAL TO Mr. CHARLES LEIGHTON.—A testimonial consisting of a handsome gold watch and chain, enclosed in a morocco case, has been presented by the proprietors, managers, and workmen of the Fenton Park Works, Staffordshire, as a token of regard and esteem, to Mr. CHAS. LEIGHTON, who has for several years been cashier to Messrs. Stott and Co., and is now about to embark in the colliery business on his own account at the Cinderhill and Audley Collieries.

PANULCILLO COPPER COMPANY.

In a statement issued by the directors, regret is expressed that, in view of the stoppage of the Consolidated Bank, in conjunction with the depreciated price of copper, they do not feel justified in declaring for the present any *ad interim* dividend.

In a lengthened report by the manager (Mr. J. H. Hamilton), which gives a full account of the operations at the mine during the six months ending Dec. 31, it is stated that during the past six months an event has occurred which has exercised a powerful influence upon all industrial works in Chili, and has caused a temporary stoppage of the greater number of them—he alludes to the commencement of the war between Chili and Spain, followed at once by a blockade of the principal ports of Chili, and amongst these of Coquimbo, the port from whence all their supplies of coals and other necessaries have hitherto been derived, and to which the production of the company has been dispatched for shipment. At first sight, such an occurrence would appear to render necessary the complete stoppage of the works. On the contrary, however, it has shown the extreme facility with which the supplies can be brought from other ports, and the admirable position held by this establishment, which has enabled it to continue its operations, without diminution, under circumstances which have brought to a complete standstill nearly all the other smelting establishments in the country. In order to supply the want of small currency, which was immediately felt, they applied to, and received permission from, the Government to issue their own vales to supply this necessity. This has been done to the extent of over $7000, and has proved of great benefit, not only to themselves, but throughout the province, in all parts of which they are current. Shortly after the declaration of war the Government issued a decree abolishing all import and export duties, in order to induce business in unblockaded ports, and to cover the extra expenses which would be entailed on importers and exporters (these duties have since been reimposed).

The saving to Panulcillo, under this head alone, will cover the extra expenses incurred by changing the imports and exports to Tongoy instead of Coquimbo. If in the course of the war Tongoy and Coquimbo should both be blockaded, these works will still be able to continue, as, at the request of the company, the Government have named the Bay of San Lorenzo, 20 miles south of Tongoy, a port of entry; and everything has been prepared to remove at a short notice all the necessaries for shipping and receiving cargo to that bay; and the owners of property in the neighbourhood have engaged to afford all the assistance required, both as regards land and labour. In any possible phase which the war may assume, he could foresee no probability of being obliged to stop the works, although, under certain circumstances, it may be requisite to curtail the operations. After referring to the position and prospects of each mine, Mr. Hamilton states that during the past six months there have been smelted 19,169 tons of Panulcillo ores, and 2374 tons received from other mines, producing 3339 tons of regulus. The Cuesta furnaces have worked steadily during the past six months. They have received from Panulcillo 3010 tons of ores, and have smelted during the half-year 4749 tons, of which 512 tons were received from other mines, and have produced 950 tons of regulus. Contrary to expectations, the Coquimbo Railway has not yet been extended to Panulcillo, and owing to delays, partly caused by the war, but chiefly by landslips, Mr. Hamilton fears it will be six or eight months still before it can be completed, so that he has still to provide for the exigencies of another winter. Should Coquimbo continue unblockaded, he has every confidence that he will be able to provide fully for these, so as to keep the works in full operation during the winter of 1866.

PETROLEUM AS STEAM FUEL.—An official report of the result of Mr. Richardson's experiments in burning petroleum and other oils as a fuel for marine and locomotive engines has been forwarded from Woolwich to the Board of Admiralty, and it is stated that the report was exceedingly favourable. It is now suggested that a couple of boilers, one fed with ordinary fuel, and the other fitted up internally according to any method which Mr. Richardson may direct, should be tried competitively, and an announcement of the result should be drawn up and laid before their Lordships.

An important trade is springing up in the South of Russia in mineral naphtha. On an estate near Temrioux some borings have been lately made, and from one of them, about 2¾ in. diameter, 73,000 litres flow daily. It is believed that were the orifice enlarged a far greater quantity would be yielded.

VALUABLE SPECIMEN.—From San Francisco, we learn that a block of ore weighing 104 lbs., undoubtedly the most valuable single specimen ever taken from the Comstock lead, is on its way to England. "It is almost a solid mass of silver, with a plentiful sprinkling of spankles of gold, and is worth, according to assay, $6 per pound, or $624 for the specimen. It will, doubtless, create a great sensation among the John Bulls."

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending June 17 was 12,778*l.* 16s. 6d.

MINERAL RIGHTS ASSOCIATION.—The certificates of shares are now ready to be exchanged for the bankers' receipts.

LORD DURHAM'S COAL OIL WORKS AT FENCE HOUSES, NEAR DURHAM.—A DESCRIPTIVE ACCOUNT of these works, which embody the LATEST IMPROVEMENTS IN APPARATUS FOR THE PRODUCTION OF OIL FROM COAL, with FULL PAGE ILLUSTRATION, will be found in the ENGINEER of this day. Price, 6d.; stamped, 7d.
Office, 163, Strand, and all newsagents.

EXAMPLES OF MODERN MINING MACHINERY—No. II.—TIN ORE WASHING AND SEPARATING MACHINERY, by Messrs. HARVEY and Co., Hayle Foundry, Cornwall. FULL PAGE ILLUSTRATION. See the ENGINEER of this week.

Now ready, price 5s., by post 5s. 4d.,
THE MINES OF CORNWALL AND DEVON:
STATISTICS AND OBSERVATIONS, for 1865.
By THOMAS SPARGO, Mining Engineer, Stock and Sharebroker,
Gresham House, Old Broad-street, London, E.C.

Just published, price 2s. 6d.,
A SMALL BOOK ON PUDDLING, containing useful and important information for Puddlers, Ironworkers, and others, may be obtained through booksellers, or direct from the author. Where forgemen and others subscribe, and forward a Post-office order, a liberal allowance will be made, which will be increased if the number ordered is 24.—For terms, apply to B. BAYLISS, Bridge-street, Pontypool, Monmouthshire.

Reduction in price—Now ready, price 1s.,
FORM OF "TACK-NOTE."
OR LICENSE TO EXPLORE FOR MINERALS.
A blank form of MEMORANDUM OF AGREEMENT, for facilitating the giving and obtaining of permission to explore mineral property, based upon the much-admired German mining law, and similar in effect to the "Schurfschein," has just been printed, and will be forwarded by post on receipt of 13 postage stamps. The use of this form will infallibly prevent the refusal, so frequently complained of, to grant a lease after the necessary trials of ground have been made, and much expense incurred.
London: Published at the MINING JOURNAL office, 26, Fleet-street, E.C., and to be obtained, by order, of all booksellers.

Now ready,
WEIGHTS AND MEASURES OF ALL NATIONS, with their English Equivalents. Six copies sent free by post on receipt of two penny stamps.—Address, T. ROBERTS and Co., 8, Crane-court, Fleet-street, London.

ELLEN UNITED COPPER AND ZINC MINING COMPANY
LIMITED, ST. AGNES, CORNWALL.

At a SPECIAL MEETING of directors, held at their offices, in Manchester, on the 15th May, and reporting on the discovery of a rich lode of copper in the new shaft, yielding 27½ per cent. (as per assays), the directors have WITHDRAWN ALL SHARES AT PAR, and now offer a LIMITED NUMBER at a PREMIUM of FIVE SHILLINGS per share. The shares are considerably improving in value as the sinking on the lode proceeds.

We beg to refer you to the reports in the MINING JOURNAL of 12th and 19th May, from our agent, Capt. J. TONKIN, from which the following are extracted:—

"I have pleasure in informing you that we have cut a rich lode of copper in the new shaft; I sent samples to be assayed, the first produced 6¾ per cent., the second 14½, this when dressed produced 27½ per cent. This is a rich discovery at so early a date, and I may say it establishes the expectations we had in sinking the new shaft to try the lode under the Navvy pit, from which £60,000 worth of rich copper ore was raised in the former working."

Capt. THOMAS DELBRIDGE has inspected this lode, and says in his report—"It s a beautiful looking lode; I took some stones to Mr. William Andrew, of Redruth, they produced 14½ per cent. for copper; this I think is a fair sample of the lode in the bottom of the shaft. It is my opinion it will greatly improve as it deepens; the ore is only 2 ft. above the bottom of the shaft. It is believed that this lode is standing all in virgin ground to the west of cross-course; if so, you are all right; this will come in parallel ground with the rich deposits of ore in the Navvy pit. If you work with spirit, and carry out the necessary operations, and drain the mine, I believe you will have one of the best mines in the district."

The directors recommend an early application for shares, to be made at the company's offices, 28, Princess-street, Manchester, where prospectuses and reports, with forms of application, may be had, and specimens of ore with map of the mine seen, and every information obtained.

WHEAL GOLDEN SILVER-LEAD MINING COMPANY
(LIMITED).

Incorporated under the Companies Act, which strictly limits the liability of each shareholder to the amount of his subscription.

Capital £45,000, in 15,000 shares of £3 each, of which upwards of three-fourths are already disposed of.

Deposit, 10s. per share on application and 10s. on allotment, Further calls not to exceed 5s. per share, and not to be made at intervals of less than three months. From careful calculations it is estimated that not more than 35s. per share will be required.

DIRECTORS.

T. E. FOAKES, Esq., Chairman of the Penhale and Lomax Consolidated Silver-lead Mining Company (Limited),—CHAIRMAN.
J. R. BINDLEY, Esq., Director of the Caldbeck Fells Consolidated Lead and Copper Mining Company (Limited).
H. HARDIE, Esq., Director of the Caldbeck Fells Consolidated Lead and Copper Mining Company (Limited).
THOMAS PARLEY, Esq., 8, Douglas-road, North Canonbury.
J. G. RUSSELL, Esq., Director of the Caldbeck Fells Consolidated Lead and Copper Mining Company (Limited).
S. S. WINDHAM, Esq., Director of the Penhale and Lomax Consolidated Silver-lead Mining Company (Limited).

BANKERS—The Albion Bank (Limited), 2, Bank-buildings, Princes-street, E.C.
SOLICITOR—W. C. Smith, Esq., 48, Lincoln's Inn-fields, W.C.
AUDITOR—W. Moates, Esq., 5, Lothbury, E.C.
MANAGER—Capt. John Kitto, late agent of the Great Laxey Mines.
SECRETARY—W. G. Powning, Esq.
OFFICES,—192, GRESHAM HOUSE, OLD BROAD STREET, LONDON.

PROSPECTUS.

This company is established to work a very extensive silver-lead mine, known as Wheal Golden, situate in the parish of Perranzabuloe, in the county of Cornwall.

The property is held under leases for 21 years, at the unusual royalty of 1-24th, the average royalty of the lead mines of Cornwall being from 1-15th to 1-18th.

In former workings—and when lead was of much less commercial value than at the present time—Wheal Golden returned very large profits to its owners.

In these days of commercial disaster, and amidst the utter failure of so large a proportion of the various schemes which have been introduced to the public since the enactment of the law of limited liability, the market value of shares in lead mines has stood, almost alone comparatively, but little affected by the crisis. Among the reasons which may be assigned for this encouraging fact is the small amount of capital required, and the merely nominal amount of contingent liability; while regular and (in many cases) progressive quarterly dividends are paid to the shareholders, in some instances amounting to 50 per cent. upon the capital paid up, and 10, 15, and 20 per cent. upon the negociable value of the shares. For example—Great Laxey shares, with £4 paid, receive quarterly dividends (irrespective of bonuses) of 10s. per share, the market price being £21 to £22; West Chivertons, with £20 paid, 30s. to 35s., the market price being about £70; Wheal Trelawnys, with £5 17s. 6d. paid, 10s. to 12s. 6d., the market price being £17 to £19; and Herodsfoot, with £8 10s. paid, £1 15s. four-monthly, the market price being £38 to £40. These are cited merely as illustrative cases; there are many other lead mines which, although not so well known upon the market, have produced, and still are producing, even larger profits, as in the case of the Lisburne mines, which have paid to their shareholders no less than £467 upon each (£18 15s.) share; the Cwmystwith, £352 10s. upon each (£60) share; and Minera, £198 upon each (£25) share.

In addition to the uniformly favourable opinions entertained by all practical miners who have known the property, either by repute or association, there is (as will be seen by the report attached to the prospectus) the testimony of Capt. John Kitto, whose ability as a miner is substantially manifested by the present remunerative condition of the celebrated Great Laxey Mines. Capt. Kitto states that "Wheal Golden is in the best lead-bearing district in Cornwall, and surrounded by most of the richest lead mines in that county, and that the Wheal Golden lodes are acknowledged by all competent miners to rank amongst the most important."

Taking into consideration the fact that the expenditure necessary in the opening out of a mine, by the sinking of shafts, and the driving of levels, will be saved to this company, and that immediately the requisite machinery is in operation large and progressive sales of ore will be effected, the directors feel confident that early and profitable results will be realised.

The directors have succeeded in securing this extensive property upon most advantageous terms—£13,500, the whole of which is to be paid in the shares of the company, thus showing the confidence of the vendors in the intrinsic merits of the undertaking.

No promotion money will be paid, and the preliminary expenses will be confined to the amounts necessarily expended, but in no case will exceed £300.

The Articles of Association require that a general meeting of shareholders shall be held every six months; that the secretary's salary and office expenses shall not exceed £150 per annum (unless that amount be increased by the vote of the shareholders at a general meeting); and that the directors remuneration shall be left to the decision of the shareholders at each general meeting.

A powerful steam-engine, of 60-in. cylinder, capable of draining the mine and sinking to a considerable depth, has been purchased, and preparatory operations for an extensive development of the valuable resources of the property are in progress.

Allotments will be made according to priority of application, and where no allotment is made, the deposit will be returned without any deduction whatever.

Applications for shares to be made by filling up the form enclosed in the prospectus, and transmitting it with the amount of deposit to the bankers or secretary of the company. No application will be received for less than five shares, and the shares will be issued in certificates of five each.

The Articles of Association may be inspected at the offices of the company, where specimens of ore from the mine may be seen, and prospectuses and forms of application obtained.

Wheal Golden Mine.—Agreeably with your request, we beg to hand you the following as our report upon the above mine:—Its situation needs no comment, as it is in the best lead-bearing district in Cornwall, and surrounded by most of the richest lead mines in the county; not only so, but the Wheal Golden lodes are acknowledged by all competent miners to rank amongst the most important. The mines have been extensively worked, and very large returns made; and, but for the very inadequate machinery, would doubtless be at the present time in a profitable position. The water in the mine is very easy; 12-inch pit-work being ample for all requirements. There are five drawing shafts, the respective positions of which will admit of the most extensive development. The buildings, when operations were suspended, were of the most substantial character, and favourably situated for the reception of machinery. Being thoroughly acquainted with the mine, we might detail the workings at each successive level, but for the present shall confine ourselves to some of the leading or most important points. The main engine-shaft is in the centre of the mine. This shaft is sunk nearly as deep as the roof of the 117, which was being driven back from Thorne's, or the diagonal shaft; but operations were suspended before the required depth was reached. The next shaft, north from the engine, is Thorne's, which is the deepest in the mine, and sunk to the 127; not much, however, was done below the 117; but still, sufficient to show that the great improvement which took place in the levels above continued. The improvement to which we refer was that at the 97; the ground between the engine and Thorne's shaft was hard, and comparatively barren; but the 107, underneath it, showed a good improvement, and was productive for the length of 20 fathoms; the 117 still further improved, and four very good pitches were set; the ground also completely changed in character, and became very easy for exploring. Further north is situated Young's shaft; about this point are what has been considered the greatest courses of ore, and we shall be borne out in saying we never saw a better level for lead ores in the mine. Thus, you will see that from the engine-shaft to the furthest point north there has been no falling off in depth; but, on the contrary, it does, and doubtless will, continue to improve when more fully developed. South from the engine-shaft is situated Webb's, which is sunk to the 97; at and about this point is some good tribute ground; the best courses of ore in the south part of the mine lie, however, ahead of this 97 fm. level end. It appears that at and above the 70 in this ground the lode was in two separate parts; but betwixt the 70 and 87 they formed a junction, and was productive at the latter level for nearly 50 fms. in length—in fact, nothing of the kind was ever before seen in the south part of Wheal Golden, and in our opinion it will prove a continuous course of ore. Maxwell's, or the south shaft, is sunk to the 87; and our remarks respecting the junction and productiveness above referred to are applicable in every particular in this part. From the foregoing you will understand that the principal lead-bearing ground is both north and south from the engine-shaft; and when we look at the mine as it really stands, with the improvement between Thorne's and the main engine-shaft, together with the lode becoming so productive south from Webb's, we consider the present engine-shaft in a most favourable position for the full development of the property. In conclusion, we may say that we have always entertained a very high opinion of the mine, and feel assured that it is capable, with adequate machinery and judicious management, of being brought into a permanently profitable condition, and that it will soon again rank amongst the most important in this district. We are, Gentlemen, your obedient servants,

JOHN KITTO, WILLIAM KITTO.

MR. CHARLES BAWDEN, INSPECTING MINE AGENT, ST. DAY CORNWALL, OFFERS HIS SERVICES to CAPITALISTS SEEKING to INVEST in *bona fide* MINES.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN RE WEST STRAY PARK MINE.

TO BE SOLD, pursuant to an Order made in a Cause Pike and Another *v.* Vivian and Reynolds and Others, dated the 12th day of January last, at the Registrar's Office, at Truro, on Wednesday, the 27th day of June inst., at One o'clock in the afternoon precisely,

13 (1039ths) PARTS or SHARES of the defendants William Cock Vivian and Joseph James Reynolds, the younger;
1 (1039th) PARTS or SHARES of the defendant Edward Rawlings;
4 (1039ths) PARTS or SHARES of the defendant William Britton Stephens

Of and in the said MINE.

HODGE, HOCKIN, and MARRACK, Truro; agents for S. T. G. Downing, Redruth, plaintiff's solicitor.

Dated Registrar's Office, Truro, June 13, 1866.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN RE WHEAL UNION MINE.

TO BE SOLD, pursuant to an Order made in a Cause Buckley *v.* Armstrong and Others, dated the 11th day of January last, at the Registrar's Office, at Truro, on Wednesday, the 4th day of July next, at One o'clock in the afternoon precisely,

10 (6000ths) PARTS or SHARES of the defendant Robert Armstrong;
10 (6000ths) PARTS or SHARES of the defendant Hugh Gilmour; and
8 (6000ths) PARTS or SHARES of the defendant James Vivian Bennett

Of and in the said MINE.

HENRY SEWELL STOKES, solicitor, Truro; agent for John Finch, 22, Throgmorton-street, London, plaintiff's solicitor.

Dated Registrar's Office, Truro, June 16, 1866.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL SITHNEY AND CARNMEAL UNITED MINING COMPANY.—TENDERS will be received at the Registrar's Office, Truro, until the 5th day of July next, stating the highest price which will be given for the MINE SETT or GRANT, under and by virtue of which the mining operations of the said company have for some time past been carried on, and the ENGINES, MACHINERY, MATERIALS, and OTHER EFFECTS now at WHEAL SITHNEY AND CARNMEAL UNITED MINES, in the parish of Sithney, in the county of Cornwall.

If no satisfactory tender should be received the pitwork will be drawn to surface without delay, and the whole of the machinery and materials sold.

HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.

Dated Registrar's Office, Truro, June 20, 1866.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WENDRON CONSOLS MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 9th day of June inst., presented to the Vice-Warden of the Stannaries, by Frederick Hill, a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the College Hall, Exeter, on the 14th day of July next, at Two o'clock in the afternoon,

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitors, or their agents, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., Secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavits verifying the same, from the petitioner, his solicitors, or their agents, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 11th day of July next, and notice thereof must at the same time be given to the petitioner, his solicitors, or their agents.

HODGE, HOCKIN, AND MARRACK, Truro, Cornwall
(Solicitors for the Petitioner).
Messrs. BOLTON AND GRYLLS HILL, 4, Elm-court, Temple, London
(Agents of the said Solicitors).

Dated Truro, June 19, 1866.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the ST. JUST UNITED TIN AND COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 18th day of June instant, presented to the Vice-Warden of the Stannaries, by William John Rawlings, a creditor of the said company, and that the said petition is directed to be heard by the Vice-Warden, at No. 18, Thurloe-square, Brompton, London, on Wednesday, the 4th day of July next, at Twelve o'clock at noon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitors, or their agents, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary to the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner, his solicitors, or their agents, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 2d day of July next, and notice thereof must, at the same time, be given to the petitioner, his solicitors, or their agents,

HODGE, HOCKIN, AND MARRACK, Truro, Cornwall
(Solicitors for the Petitioner).
GREGORY BND ROWCLIFFE, No. 1, Bedford-row, London
Dated Truro, June 21, 1866. (Agents of the said Solicitors).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Devon.

IN the MATTER of the COMPANIES ACT, 1862, and of the ROBOROUGH DOWN TIN AND COPPER MINING COMPANY (LIMITED).—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN and PROVE THEIR SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on or before the 29th day of June, 1866, or in default thereof they will be excluded from the benefit of any distribution made before such proof.

And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Registrar of the Court at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the Superior Courts, lawfully authorised to take and receive affidavits and affirmations.

WILLIAM MICHELL,
Dated June 20, 1866. Registrar of the above-named Court, Truro, Cornwall.

MANCHESTER.
TO COLLIERY OWNERS AND OTHERS REQUIRING POWER, ENGINEERS, MILLWRIGHTS, MACHINE BROKERS, &c.

JOHNSON AND KING are instructed to SELL, BY AUCTION, at the Liver Foundry, Ordsal-lane, Salford, Manchester, on Thursday next, June 28, at Twelve o'clock prompt, SIX NEW STEAM ENGINES, viz.:

ONE 6-horse HIGH-PRESSURE HORIZONTAL ENGINE,
TWO 5-horse VERTICAL ENGINES,
ONE 18-horse HORIZONTAL ENGINE,
ONE 16-horse HORIZONTAL ENGINE,
ONE 12-horse HORIZONTAL ENGINE,

Together with two cast-iron spiral staircases, and a lot of partly-finished engine-work.—On view three days prior to sale. Catalogues ready, and may be had from the Auctioneers, 12, Newall's-buildings, Market-street, Manchester.

N.B.—The engines are quite new, very strong, and combine all the latest improvements.

FOR SALE, BY PUBLIC AUCTION, in the City of London, in the month of October or November next, the VALUABLE SILVER-LEAD MINE, known as the WHEAL ELLEN, situate about thirty-five miles from ADELAIDE, in the Hundred of STRATHALBYN, SOUTH AUSTRALIA, together with an ESTATE of about SEVEN HUNDRED ACRES, with the BUILDINGS, MACHINERY, PLANT, and MATERIALS, including THREE STEAM ENGINES, with the requisite mining gear, and stores and materials.

Very extensive works have been executed, including four shafts, one to the depth of 40 fathoms, two of 50 fathoms, and one of 60 fathoms, with levels and cross-cuts, and rich silver-lead ore has been obtained in such quantities as to prove the great value of the property.

Further particulars can be had on application to Messrs. YOUNG, JONES, ROBERTS, and HALE, solicitors, St. Mildred's-court, Poultry, E.C.

ECTON MOUNTAIN, STAFFORDSHIRE.

FOR SALE, BY PRIVATE CONTRACT, LEASE and TACK-NOTE of MINING SETTS (LEAD and COPPER) in the above celebrated mineral hill. The setts are extensive, and may be cheaply worked; they contain several shafts, levels, &c.

Also TO BE SOLD with the above, or separately, a quantity of MINING PLANT and MATERIALS, including tram rails, wagons, stamping mill, &c.

For particulars, apply to Messrs. BENHAM and TINDELL, solicitors, 18, Essex-street, Strand, London; or to Mr. J. MATHER, accountant and agent, Manchester Chambers West, Manchester.

FALMOUTH SMELTING WORKS, admirably adapted for any other smelting or large manufacturing purposes, and in close proximity to the Falmouth Railway and Docks, FOR DISPOSAL, BY PRIVATE CONTRACT. Apply on the works; or for particulars, to JOHN DARLINGTON, Esq., Moorgate-Chambers, Moorgate-street, London, E.C.

TO MINE CAPITALISTS.
WEST WHEAL VOR MINE, IN THE PARISH OF BREAGE, IN THE COUNTY OF CORNWALL.

FOR SALE, BY PRIVATE TREATY, OR TENDER, all that very extensive and valuable MINE, called or known by the name of WEST WHEAL VOR, situate in the parish of BREAGE, in the county of CORNWALL, together with the SETT, MACHINERY, and MATERIALS thereon, comprising an excellent 50 in. cylinder PUMPING ENGINE, a new BOILER about 11 tons, and every attachment, with 40 fms. of rods, pitwork, and machinery in the engine-shaft, and about 35 fms. of pitwork, &c., in the north shaft, and 120 fms. of iron flat-rods, pulleys and stands, balance-bob and connections to the engine, with a variety of spare materials and account-house furniture, the whole being in a thorough state of operation and complete working order.

The purchaser will have possession given of the whole mine, setts, and materials on Saturday, the 30th day of June inst., and must then take the responsibility of the setting and future operations of the mine, but no liability will attach to the purchaser up to that date.

To treat for the same, application may be made in London to Mr. W. GUNDRY, 20, Throgmorton-street; Mr. H. GUTIERREZ, 74, Old Broad-street; or Mr. J. H. MURCHISON, 8, Austinfriars; and in Cornwall to Mr. T. MILLS, Town Hall, Redruth. Principals only will be dealt with.

Dated June 19, 1866.

TO COLLIERY PROPRIETORS, AND OTHERS.

TO BE DISPOSED OF, the LEASE, PLANT, ENGINE, BOILERS, MACHINE, and all other effects used in a colliery. Any person or persons desirous of entering into the above business will find this an excellent opportunity for investment. It contains 94 acres, or thereabouts, and has three good workable coal seams of first-rate quality; one is 6 ft. thick, another 9 ft. thick, and another 6 ft. thick, and is now in good working order, and the lease has 19 years to run.

For further particulars, apply to "L. Z.," MINING JOURNAL office, 26, Fleet-street, London. None but principals need apply. Satisfactory reasons given for disposing of the same.

TO BE SOLD, BY PRIVATE CONTRACT, the following MINING MACHINERY:—

ONE 50 in. cylinder PUMPING ENGINE, with TWO BOILERS.
ONE 18 in. WHIM ENGINE, with BOILER.
ONE 24 in. STAMPING ENGINE, with BOILER.

The above engines and boilers are at Wheal Lovell, near Helston, and are for sale either together or separately.

Apply to Capt. J. B. WILKIN, Wheal Basset and Grylls, Helston.

Dated June 4, 1866.

FREEHOLD COAL ESTATE TO BE SOLD, a bargain. The property, about 900 acres, situated in Glamorganshire, contains upwards of 40 ft. of coal, as per section, and abounds with fire-clay, ironstone, &c. It is near a port, and has a railway passing over it.—Application to be made to "M.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

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For further particulars, apply to ALEXANDER M'DONALD, Esq., Glenarm, N. Ireland.

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TEN to carry TEN TONS each.
TWENTY-FIVE to carry SIX TONS each.
All in first-class condition.
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(LIMITED).

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This company was originally formed for the manufacture of steel under the Bessemer process, from the furnaces of Messrs. Schneider, Hannay, and Co.

The company have since arranged for the transfer to them, on the 1st January, 1866, of the Hematite Iron Ore Mines and Furnaces belonging to that firm.

In addition to the supply of iron ore and hematite pig-iron, and the manufacture of steel rails, which was the primary object of the company, they manufacture tyres and axles.

Plates for shipbuilding, boilers, girders, bridges, and roofs.

Bars, angles, guns, and forgings of every description in steel.

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Registered under the Companies Act, 1862, whereby the liability of each shareholder is limited to the amount of his shares.

Capital £50,000, in 10,000 shares of £5 each.

Deposit, £1 per share on application, and £1 10s. on allotment.

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WM. WALTER, Esq., Berengrave, Rainham, Kent.

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AUDITOR—F. Bertram Smart, Esq.
GENERAL MANAGER—Mr. Thomas Harvey.
OFFICES,—33, KING STREET, CHEAPSIDE, E.C.

This company is being formed for the purpose of purchasing and extending the workings of an established and valuable quarry in Carnarvonshire, known as the Dorothea West, lying on the hill side of Nantile Vale, and embracing and intersecting nearly all the valuable veins of slate in that district, including the celebrated Dorothea veins.

The company have agreed to purchase the quarries, which are in full work, and realising a large monthly profit, together with the plant and machinery, for the sum of £20,000, one-half of which is to be paid in cash, and the remainder in paid-up shares. This amount is far less than the capital expended in developing the quarries, and bringing them into their present profitable condition; but the original proprietors have stipulated for retaining a large interest in the company.

There are seven veins of slate in the property, of fine colour, split, and quality, the slates from which can be seen on the quay at Carnarvon, from whence they are shipped or sent off by rail to all parts. The new Charing Cross Railway Hotel, the London Bridge Hotel, and the Star and Garter Hotel, Richmond, are covered with green slates from this quarry.

The green slate from the Dorethea West has been long known as the finest in colour and quality, as well as the largest vein of green slate in Carnarvonshire. Green Duchesses are now worth £19 per thousand, or £6 6s. 8d. per ton, and other sizes bear a proportionate price, being all about double the price of the best blue, and exceeding the average price per ton of all the copper ores of Cornwall.

Full prospectuses, with reports and forms of application for the remaining shares, can be had at the company's offices. The company commenced working the quarry on the 1st January, 1866, and the profit on the total working expenses has already exceeded 40 per cent. The accounts can be seen at the offices.

RAILWAYS AND MINES.—Capitalists who seek safe and profitable investments, free from risk, should act only upon the soundest information. The market prices for the day are for the most part governed by the immediate supply and demand, and the operations of speculators, without reference to the *bona fide* merits of the property. Railways depend upon the traffic, expenditure, and capital accounts, the probabilities of alliance or competition with neighbouring companies, the creation of new shares, the state of the Money Market as affecting the renewal of debentures, and other considerations founded on data to which those only can have access who give special attention to the subject. Mines afford a wider range of profit than any other public securities. The best are free from debt, have large reserves, and pay dividends bi-monthly varying from £10 to £15 per cent. per annum. Instances frequently occur of young mines rising in value 400 or 500 per cent. But this class of security, more than any other, should be purchased only upon the most reliable information. The undersigned devote special attention to Railways and Mines, afford every information to capitalists, and effect purchases and sales upon the best possible terms. Thirty years' experience in mining pursuits justifies us in offering our advice to the uninitiated in selecting mines for investment.

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NOTICE.—Notice is hereby given, that the COAL BUSINESS CARRIED ON for many years by Mr. JOS. DUNSTAN will, on and after the 1st March next, be CONTINUED under the FIRM of J. DUNSTAN AND CO. To the above will be ADDED the BUSINESS of GENERAL MERCHANTS, AUCTIONEERS, MINE BROKERS, and SHAREDEALERS, MINE PURSERS, COMMISSION AGENTS, ACCOUNTANTS, &c.

J. DUNSTAN and CO. hope, by strict application to all matters of business entrusted to their care, to merit a liberal share of public patronage.

Truro, January 24, 1866.

PATENT FLEXIBLE TUBING AND BRACTICE CLOTH FOR MINES,
MANUFACTURED BY
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PATENTEE,
WEST GORTON WORKS, MANCHESTER.

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ENGINEERS, IRON AND BRASS FOUNDERS,
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GALLOWAY'S PATENT CONE TUBES FOR STEAM BOILERS.—The introduction of these vertical taper tubes into the ordinary flued boilers PROMOTES the NECESSARY CIRCULATION of WATER, and thus INCREASES THEIR STRENGTH and DURABILITY.

Their adoption not only adds to the steam-producing power of the flues, but renders the practice of hooping with angle or tee iron rings quite unnecessary.

The tubes have now been in use upwards of 14 years, and above 22,000 are in work in various parts of the country, with the best results.

They can be easily fixed in existing boilers (owing to their taper form) by any boiler maker, but can only be obtained from the patentees, W. and J. GALLOWAY and SONS, Engineers and Boiler Makers, Manchester.

IMPROVED ORE-DRESSING MACHINERY.—FULL PARTICULARS relative to the IMPORTANT IMPROVEMENTS recently made by Mr. HUNT in his PATENT ORE SEPARATOR and GOLD WASHING MACHINES can be obtained on application to Mr. WILLIAM WARD, 95, Bishopsgate-street Within, or to Mr. JOHN HUNT, Porthleven, Helston, Cornwall.

A WORKING MODEL of the MACHINE will be shown and explained at Mr. WARD'S office, as above, or it can be seen working at the Patentee's Silver-lead Works, Porthleven.

Mine proprietors, or others, having refuse ore of any kind, or slag containing metal, at their disposal, will please send full particulars to Mr. HUNT, who is prepared to treat for the same on liberal terms.

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The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.

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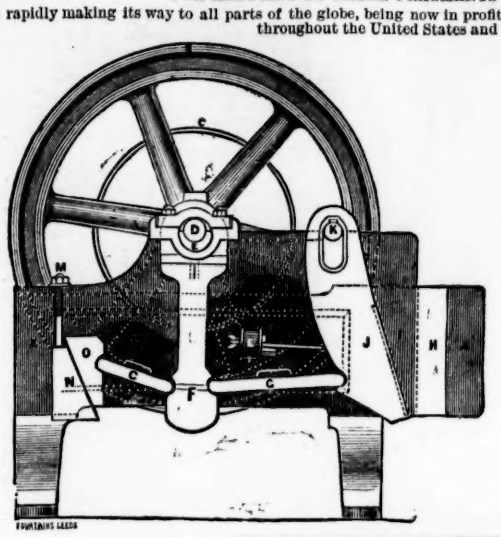

The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.
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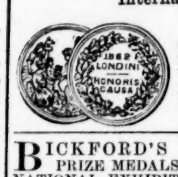

JAMES RUSSELL AND SONS (the original patentees and first makers of wrought-iron tubes), of the CROWN PATENT TUBE WORKS, WEDNESBURY, STAFFORDSHIRE, HAVE BEEN AWARDED a PRIZE MEDAL for the "good work" displayed in their wrought-iron tubes and fittings.
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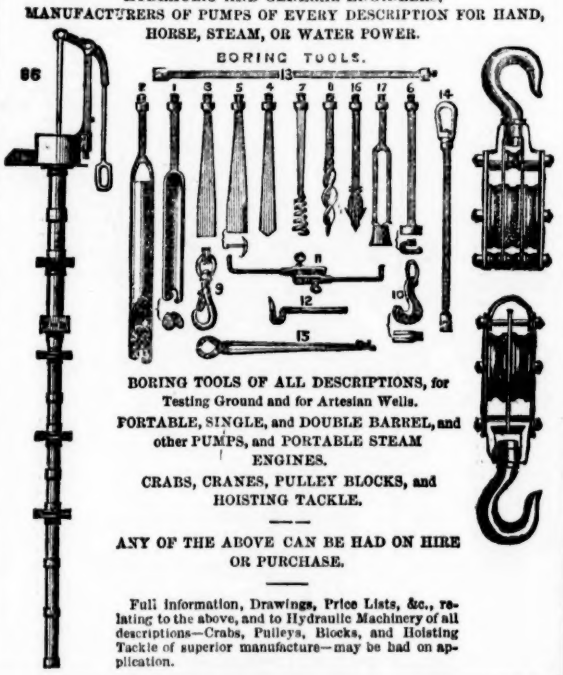

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TO OUR ESTEEMED CORRESPONDENTS.—For the convenience of the proprietors of the "Iron Trade Circular," our subscribers and patrons are respectfully requested to give all orders and make all remittances direct to Mr. George Ryland, the financial partner of the "Iron Trade Circular," at the above address, and not, as heretofore, to Messrs. Charles Ryland and Sons, the proprietors being desirous of keeping their business apart from any other, as the circulation and accumulating business of the "Iron Trade Circular," as an advertising medium, renders this course absolutely necessary. We trust this slight alteration will not occasion any inconvenience to our friends.

THE COUNTY PAPER.—County advertisements inserted by Authority of the Court of Quarter Sessions.

THE FLINT COUNTY CHRONICLE: A Mining, Agricultural, and General Advertiser for Mold, Flint, Rhyl, Holywell, Northop, Buckley, Hawarden, Saltney, and neighbourhood. The great success which has attended the publication of the "County Chronicle" justifies the proprietors in drawing the attention of advertisers to the special advantages it offers as an advertising medium. For the announcements of auctioneers, public companies, and tradesmen, it is the best in the county, having attained a circulation throughout Flintshire treble that of all the other so-called local papers combined. As a newspaper it contains full and impartial reports of all local events, and devotes particular attention to the mining and oil trade interests of the district—special articles appearing from week to week. Agriculture is not neglected, the latest market reports being a distinctive feature of the paper, together with other matters of interest to the agriculturist. All communications should be addressed "To the Editor," Bromfield Villa, Maesydderwen, Mold.

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (ESTABLISHED 1764.)
Published every Saturday, price 2d., or quarterly 2s. 2d.
THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER.
Published every morning, price 1d.
Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 195, High-street, Sunderland.

THE STOCKTON AND HARTLEPOOL MERCURY AND MIDDLESBOROUGH NEWS (published at Hartlepool) is eminently the organ of the Coal, Iron, and Iron Shipbuilding Trades in the extensive Mining and Maritime District of South Durham and Cleveland, with which it has been closely identified since its origin. The "Mercury" was for years the only newspaper published in South Durham and Cleveland, and is yet the only one published more than once a week. Advertisements to be forwarded to the publisher, Mr. JOHN H. BELL, Southgate, Hartlepool.

DR. WATSON (of the Lock Hospital), F.R.A.S., Member of the College of Physicians and Surgeons, on the SELF-CURE of NERVOUS and PHYSICAL DEBILITY, Lowness of Spirits, Loss of Appetite, Timidity, Incapacity for Exertion, &c., with means for perfect restoration. Sent free for two stamps by Dr. WATSON, No. 1, South-crescent, Bedford-square, London. Consultations daily from Eleven till Three, and Six till Eight.

Just published, post free for two stamps,
WONDERFUL MEDICAL DISCOVERY, demonstrating the true causes of Nervous, Mental, and Physical Debility, Lowness of Spirits, Indigestion, Want of Energy, Premature Decline, with plain directions for perfect restoration to health and vigour, WITHOUT MEDICINE. Sent free on receipt of two stamps, by W. HILL, Esq., M.A., Berkeley House, South-crescent, Russell-square, London, W.C.

NERVOUS DEBILITY: ITS CAUSE AND CURE.—Before seeking aid from the so-called remedies without medicine, read this valuable work on the Treatment and Cure of Nervous and Physical Debility, Loss of Appetite, Pains in the Back, Spermatorrhœa, &c., with Plain Directions for Perfect Restoration to Health. Sent post free to any address, on receipt of two postage stamps. Letters of enquiry or details of case promptly answered.
Address, Dr. SMITH, 8, Burton-crescent, London, W.C.

CONSULT DR. HAMMOND (of the Lock Hospital, &c.), No. 11, Charlotte-street, Bedford-square, London, W.C., in all those ailments which tend to embitter and shorten life, and especially those termed peculiar and confidential. At home, Nine to Two, and Six to Eight; Sundays, Ten to Twelve. The "Self-Curative Guide" post free, six stamps.
N.B.—Cases of recent infection cured in two days.

Just published, free six stamps,
LITERARY PHOTOGRAPHS; or SECRET LIFE PICTURES. In a series of Six Tableaux. Dedicated to husbands, bachelors, and widowers: with medical hints to all classes of both sexes. Sent post free on receipt of six stamps, by H. JAMES, Esq., Percy-house, Bedford-square, London.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
200	Botallack, *t, c,* St. Just	91 5 0	— ..		488 15 0	5 0 0	..May, 1866
10000	British Slate Company	8 0 0	— ..		9 per cent.		..Mar. 1866
1000	Bronfloyd, *l,* Cardigan*	12 0 0	— ..		8 1 0	0 6 0	..May, 1866
916	Cargoll, *s-l,* Newlyn	15 5 7	— ..	15 20	13 15 0	1 0 0	..Feb. 1866
867	Cwm Erfin, *l,* Cardiganshire*	7 10 0	— ..		19 18 0	1 0 0	..April,1866
128	Cwmystwith, *l,* Cardiganshire	60 0 0	— ..		352 10 0	5 0 0	..April,1866
280	Derwent Mines, *s-l,* Durham	300 0 0	— ..		162 0 0	2 10 0	..Mar. 1866
1024	Devon Gt. Consols, *c,* Tavistock†	1 0 0	520 ..	440 450	1024 0 0	7 0 0	..May, 1866
358	Dolcoath, *c, t,* Camborne	128 17 6	— ..		813 10 0	1 0 0	..June, 1866
6144	East Caradon, *c,* St. Cleer†	2 14 6	8¼ ..	7½ 8	14 3 0	0 5 0	..Jan. 1866
300	East Darren, *l,* Cardiganshire	32 0 0	— ..		113 10 0	2 0 0	..May, 1866
128	East Pool, *t, c,* Pool, Illogan	24 5 0	— ..	400	374 10 0	5 0 0	..May, 1866
5000	East Roseworne, *c, t,* Gwinear	2 15 0	— ..	1 1⅛	0 10 6	0 1 6	..Jan. 1866
1906	East Wheal Lovell, *t,* Wendron	3 9 0	7 ..	6 7	2 7 6	0 7 6	..May, 1866
2800	Foxdale, *l,* Isle of Man*	25 0 0	— ..		68 0 0	0 10 0	..Mar. 1866
5000	Frank Mills, *l,* Christow	3 18 6	4½ ..		3 5 6	0 5 0	..Feb. 1866
15000	Great Laxey, *l,* Isle of Man*	4 0 0	22 ..	20½ 21½	4 15 0	0 10 0	..June, 1866
5908	Great Wheal Vor, *t, c,* Helston†	40 0 0	19 ..		10 0 0	0 10 0	..June, 1866
1024	Herodsfoot, *l,* near Liskeard†	8 10 0	48 ..	35 40	37 10 0	1 10 0	..June, 1866
6000	Hingston Down, *c* †*	5 10 6	— ..		0 10 0	0 5 0	..April,1866
400	Lisburne, *l,* Cardiganshire, Wales	18 15 0	— ..		470 0 0	3 0 0	..May, 1866
9000	Marke Valley, *c,* Caradon	4 10 6	4 ..	3¾ 4	3 5 0	0 2 6	..Jan. 1866
3000	Minera Boundary, *l,* Wrexham*	1 0 0	— ..		0 13 0	0 3 0	..Mar. 1866
1800	Minera Mining Co. *l,* Wrexham*	25 0 0	— ..		198 3 0	5 0 0	..May, 1866
40000	Mwyndy Iron Ore*†	3 0 0	— ..		0 6 6	0 2 6	..Mar. 1866
600	Pant-y-Glien, *sl.*	20 0 0	— ..		10 per cent.		..May, 1866
200	Parys Mines, *c,* Anglesey*	50 0 0	— ..		157 0 0	5 0 0	..Jan. 1866
1120	Providence, *t,* Uny Lelant†	10 6 7	23 ..	22 24	80 17 6	0 10 0	..May, 1866
512	South Caradon, *c,* St. Cleer†	1 5 0	— ..		524 10 0	7 0 0	..May, 1866
6000	South Darren, *l* *	3 6 6	3⅜ ..	3 3¼	0 6 0	0 3 0	..June, 1866
6000	Tincroft, *c, t,* Pool, Illogan†	9 0 0	10 ..	9½ 10½	18 1 0	1 0 0	..Jan. 1866
3000	W. Chiverton, *l,* Perranzabuloe†	— ..	67½ ..	65 67½	11 7 6	1 15 0	..May, 1866
400	West Wheal Seton, *c,* Camborne†	47 10 0	125 ..		456 4 0	3 0 0	..June, 1866
512	Wheal Basset, *c,* Illogan†	5 2 6	— ..		620 0 0	1 0 0	..June, 1866
1024	Wheal Friendship, *c,* Devon	20 0 0	— ..		300 0 0	1 0 0	..Mar. 1866
4295	Wheal Kitty, *t,* St. Agnes	5 4 6	— ..		2 19 0	0 1 6	..May, 1866
2000	Wheal Rose, *c,* Scorrier	— ..	— ..	10 11	1 0 0	0 10 0	..Feb. 1866
396	Wheal Seton, *t, c,* Camborne	58 10 0	177½ ..	175 180	226 15 0	5 0 0	..April,1866
1040	Wheal Trelawny, *s-l,* Liskeard†	5 17 0	— ..		54 0 6	0 3 0	..June, 1866

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

1055	Craddock Moor, *c,* St. Cleer	10 4 0	— ..		7 12 0	0 4 0	..June, 1865
1200	Bryn Gwyn, *l,* Mold*	9 0 0	— ..		3 3 6	0 13 6	..Aug. 1865
2880	Clifford Amalgamated, *c,* Gwen	30 10 0	8 ..	6½ 7	35 6 0	0 10 0	..June, 1865
6000	East Carn Brea, *c,* Redruth	3 15 0	— ..	⅜ ⅝	0 5 0	0 5 0	..June, 1865
20000	Mining Co. of Ireland, *c, l, cl.*	7 0 0	— ..	17½	19 18 11	0 16 1	..July, 1865
6000	New Birch Tor and Vitifer Cons. †	1 6 6	— ..		0 13 0	0 2 0	..Oct. 1865
6000	West Basset, *c,* Illogan†	1 10 0	— ..	1 1¼	26 14 0	0 5 0	..July, 1865
1024	Wheal Exmouth, *l,* Christow	— ..	— ..		— ..	0 2 6	..Oct. 1865
1024	Wheal Mary Ann, *l,* Menheniot†	8 0 0	3½ ..	3 3½	59 17 6	0 10 0	..Mar. 1865
7000	Wicklow, *c,* Wicklow*	2 10 0	— ..	22¼	15 11 0	0 11 0	..Nov. 1865

FOREIGN DIVIDEND MINES.

15000	Cape Copper Mining*†	7 0 0	9¾ ..	9¼ 9¾	2 12 6	0 10 0	..April,1866
1500	East Indian Coal, Calcutta	10 0 0	— ..		— ..	— ..	
25000	Fortuna, *l,* Spain*†	2 0 0	2¾ ..	2¼ 2¾	1 3 4	0 3 0	..Feb. 1866
10000	Gonnessa, *l.** [5000 £5 pd., 5000 £2 pd.]	— ..	— ..		7½ per cent. per annum.		
15000	Linares, *t.* Spain*†	3 0 0	2½ ..		11 6 4	0 5 0	..Jan. 1865
9275	New Wildberg, *l*	2 0 0	— ..		0 12 0	0 2 0	..Aug. 1865
50000	Panulcillo, *c*†	3 0 0	3½ ..	2½ 2¾	10 per cent.		.. Yearly.
10000	Pontgibaud, *s-l,* France†	20 0 0	6 ..		2 19 8	0 0 16 8	..Dec. 1865
97500	Port Phillip, *g,* Clunes†	1 0 0	¾ ..		0 14 6	0 1 0	..Jan. 1866
20000	Scottish Australian Mining Co.†	1 0 0	⅞ ..		0 0 3	0 0 3	..Jan. 1866
11000	St. John del Rey, Brazil*†	15 0 0	51 ..	47 50	64 15 0	1 0 0	..Dec. 1866
50000	Victoria (London) [25000 £1 pd., 25000 7s. 6d. pd.]				10 per cent.		
40000	West Canada Mining Company*†	1 0 0	— ..		0 19 6	0 2 6	..May, 1865

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Quænangen United, *c*	4 10 0	— ..		4 5 0	0 15 0	..Nov. 1853
20000	Australian, *c,* South Australia†	7 7 6	— ..		0 1 0	0 1 0	..Dec. 1863
2464	Burra Burra, *c,* South Australia	5 0 0	55 ..		325 0 0	5 0 0	..Dec. 1864
12000	Cobre Copper Company, *c,* Cuba†	40 0 0	14 ..	12 14	101 0 0	1 0 0	..Jan. 1865
10000	Copiapo Mining Company, Chili†	16 0 0	— ..		6 18 0	0 10 0	..Nov. 1862
100000	Don Pedro No. del Rey, Brazil*†	0 14 0	— ..	19s. 23s.	0 0 9	0 0 9	..Dec. 1863
70000	English and Australian, *c*	5 0 0	— ..		1 12 0	0 2 0	..Aug. 1864
25000	Gen. Mining Assoc..Nova Scotia†	20 0 0	21 ..	19 21	21 0 0	1 0 0	..June, 1864
68000	Kapunda Mining Co., Australia†	1 0 0	— ..	⅜ ⅝	0 12 0	0 1 0	..June, 1864
10000	Lusitanian (Portugal)†	2 10 0	— ..		1 7 0	0 3 0	..June, 1865
103815	Mariquita and New Granada†	1 0 0	— ..		0 9 6	0 1 6	..July, 1859
43174	United Mexican, *s,* Mexico	28 5 0	2 ..	1¼ 2	2 19 0	0 5 0	..Sept. 1864
10000	Vancouver, *ci*†	5 0 0	4 ..		0 15 0	0 5 0	..Nov. 1864
45000	Yudanamutana, *c,* S. A.*†	3 0 0	⅞ ..	½ ¾	0 5 0	0 5 0	..Aug. 1863

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
35000	Alamillos, *l,* Spain*†	2 0 0	1¾ ..		..Fully pd.
100000	Anglo-Brazilian, *g*†	0 8 0	— ..		..Dec. 1863
25000	Capula, *s,* Mexico*†	1 8 0	— ..		..Feb. 1864
30000	Chontales, *g, s,* Nicaragua*†	2 0 0	3¾ ..	3¼ 3¾	..April,1866
10000	Coplapo Smelting, Chili*	10 0 0	— ..		..April,1866
300	Copper Miners' Co. of South Australia* [150 £100 pd., 150 £70 pd.]				..Nov. 1866
50000	East del Rey, *g,* Brazil*†	2 10 0	— ..		..Jan. 1866
15000	El Chico Silver Mining and Reduction Company*	4 10 0	— ..		..Jan. 1866
8000	English and Canadian Mining Company*	5 0 0	— ..		..Fully pd.
40000	Fortune, *c,* West Australia*	2 0 0	— ..		..Fully pd.
50000	Frontino and Bolivia, *g,* New Granada*†	1 5 0	⅞ ..	⅛ ¾	..Jan. 1866
80000	Great Northern, *c,* South Australia*†	1 11 0	— ..		..June, 1862
10000	Great Barrier Land, Mining, &c., New Zealand*	5 0 0	— ..		..Fully pd.
12000	Nerbudda Coal and Iron* [6000 £5 pd., 3000 £3 pd.]	— ..	— ..		..Aug. 1865
50000	Nova Scotia Land and Gold*	1 0 0	— ..		..Nov. 1862
15000	Otea, *c,* New Zealand* [5000 fully paid]	1 10 0	— ..		..April,1866
15000	Pachuca Silver Mining Company, Mexico*	1 0 0	— ..		..June, 1863
6000	Peel River Land and Mineral*	100 0 0	— ..		..Stock.
23000	Quebrada, *c,* Venezuela*	10 0 0	— ..		..Fully pd.
10178	Rhenish Consolidated, *l* [6000 £5 pd., 4178 £2 10s. pd.]	— ..	— ..		..May, 1866
50000	Rossa Grande, *g,* Brazil*	5 0 0	— ..		..April,1864
15000	San Pedro del Monte, *s,* Mexico*	3 0 0	— ..		..Jan. 1866
10000	San Roque, *l,* Spain	5 0 0	— ..		..Fully pd.
30000	Val Antigoria, *g*†	0 10 0	— ..		..
6000	Val Sassam, *s, c, l**	5 10 0	— ..		..April,1866
5000	Valgodemard Mining Company*	20 0 0	— ..		..Fully pd.
50000	Vallanzasca, *g,* Italy*†	0 12 6	— ..		..Oct. 1864
45000	Victor Emanuel, *c,* Italy*	1 0 0	— ..		..Fully pd.
20000	Washoe, *g,* [10000 £5 pd., 10000 £4 pd.]	— ..	— ..	1¾ .. 1 1¼	..
80000	Worthing, *c,* South Australia*†	1 0 0	¾ ..	⅜ ⅝	..Fully pd.
7500	Yorke Peninsula, South Australia	1 0 0	⅞ ..	⅞ ⅞	..Fully pd.

BANKS AND FINANCIAL COMPANIES.

Shares.	Banks.	Paid.	Last Pr.	Bus. done.	Last Call.
40000	Alliance*†	25 0 0	19¼ ..	18¾ 19	..
40000	Australian Mort. Land and Finance†	5 0 0	4 ..	2¾ 3¼	..
30000	Australasia†	40 0 0	63 ..	60 62	..
10000	Bank of Egypt†	25 0 0	30 ..	25 30	..
25000	Bank of Otago*†	10 0 0	7 ..		..
20000	Bank of Victoria, Australia†	25 0 0	43 ..	40 42	..
50000	Bank of New Zealand†	10 0 0	18 ..	17 18	..
10000	Bank of Queensland*†	25 0 0	8 ..		..
50000	Brazilian and Portuguese*†	10 0 0	8½ ..	7½ 8½	..
8915	Canada Company†	32 10 0	82 ..	79 82	..
50000	Canadian Loan and Investment*†	2 10 0	— ..		..
40000	Chart. Bank India, Aust. & China†	20 0 0	13 ..	11 13	..
30000	Char. Merc. India, Lond. & China†	25 0 0	35 ..	30 33	..
50000	City†	10 0 0	17 ..	15 16	..
20000	Colonial†	25 0 0	43 ..	41 43	..
40000	Company of African Merchants.*†	3 0 0	3 ..		..
150000	Consolidated Bank*†	4 0 0	3½ ..	2½ 4	..
100000	Credit Foncier and Mobilier of England*†	5 0 0	1¾ ..	2⅛ 2⅜	..
10000	Discount Corporation*†	20 0 0	8 ..	6 8	..
20000	East London*†	5 0 0	3½ ..		..
30000	English, Scottish, & Aust., Chart.†	20 0 0	17 ..		..
20000	English and Swedish*†	20 0 0	9 ..		..
250000	General Credit and Finance of London*†	6 0 0	3¼ ..	3 3¼	..
20000	Imperial Bank*†	20 0 0	25 ..	23 25	..
150000	International Financial Society*†	5 0 0	3 ..	2¾ 2¾	..
300000	International Land Credit*†	6 0 0	4½ ..	2½ 3⅛	..
4000	London African Trading*†	10 0 0	5 ..	5 5	..
50000	London Chartd. Bank of Australia†	20 0 0	21 ..	20 21	..
37500	London and County†	20 0 0	66 ..	65 67	..
40000	London Financial Association*†	25 0 0	5 ..	2 2½	..
72000	London Joint-Stock†	15 0 0	46 ..	44 45	..
5000	London Mercantile Discount*†	10 0 0	— ..		..
10000	London and South-Western*†	20 0 0	18 ..		..
50000	London and Westminster†	20 0 0	94 ..	91 93	..
50000	Mercantile and Exchange*†	11 10 0	2 ..		..
17156	Metropolitan and Provincial*†	20 0 0	12 ..	12 14	..
30000	Mineral Rights Association*†	1 0 0	1⅛ ..		..
20000	National of Australia†	4 0 0	6½ ..	5⅛ 6⅛	..
20000	National of Liverpool*†	10 0 0	14 ..	13 14	..
40000	National†	30 0 0	72 ..	70 73	..
37500	New South Wales†	20 0 0	43 ..	42 44	..
12500	Ottoman Company*†	2 0 0	— ..	1 2	..
45000	Union of Australia*†	25 0 0	46 ..	44 46	..
80000	Union of London†	15 0 0	48 ..	45 46	..

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
1200	Alderley Edge, *c,* Cheshire*	10 0 0	— ..		..
3000	Bedford Unit., *c,* Tavistk.*	2 6 8	— ..		..
3200	Bedol Aur, *l,* Holywell	1 0 0	— ..		..Jan. 1866
500	Billins, *l,* Flint	30 0 0	— ..	7 8	..Fully pd.
1000	Blaendyffryn, *s-l**	2 0 0	— ..		..Mar. 1865
6000	Bolingey Hill Consols, *c*	0 5 0	— ..		..July, 1865
1248	Boscaswell, *t, c,* St. Just	6 15 0	— ..		..
240	Boscean, *t,* St. Just	20 10 0	— ..		..
5000	Bottle Hill, *t,* Plympton	1 14 6	— ..		..June, 1866
1600	Brixham Hematite Iron*†	6 7 6	— ..		..
200	Brynford Hall, *l,* Flint	28 0 0	— ..		..Jan. 1866
5000	Bryn Gwiog, *l,* Flint	9 0 0	— ..		..June, 1864
30000	Caldbeck Fells, *l,* Cumber.*	1 0 0	— ..		..Mar. 1864
1000	Camborne Consols, *c*	18 10 0	— ..		..Feb. 1864
4600	Camborne Vn. & Wh. Fran.	11 2 10	— ..	1¾ 2	..Mar. 1866
8000	Cape Cornwall, *c,* St. Just*	2 5 0	— ..		..Jan. 1866
2000	Caradon & Phœnix Cons.*	0 12 0	— ..		..April,1865
914	Caradon Cons., *c,* St. Cleer	30 3 6	— ..		..Nov. 1865
1000	Carn Brea, *c, t,* Illogan	21 0 0	— ..		..
6000	Carn Camborne, *c,* Cambn.	1 19 0	1½ ..	1 1¼	..April,1866
4005	Cardigan Cons.* [1000 £5 pd., 3005 £4 5s. pd.]				..April,1866
600	Cardiganshire, *l**	10 0 0	— ..		..Mar. 1866
20000	Carysfort [3200 £2½ pd., 16800 £1⅜ pd.]				..Mar. 1865
6400	Cashwell, *l,* Cumberland*	2 10 0	— ..	1¾ 2	..Jan. 1865
66000	Castell Carn Dochan, *g**	0 8 6	— ..		..
2500	Cefn Cilcen, *l,* Flint*	2 15 0	— ..		..April,1866
2500	Central Minera, *l**	3 7 6	— ..		..April,1866
16000	Central Snailbeach *l*	1 0 0	— ..		..Fully pd,
3000	Chiverton, *l,* Perranzabu.	8 7 6	6¾ ..	6 6⅛	..May, 1866
3000	Chiverton Moor, *l,* Perranz.	4 16 0	6 ..	5⅛ 5⅜	..May, 1866
4000	Clara Unit., *l,* Ponterwyd*	2 10 0	— ..		..July, 1865
3000	Clowance Wood, *c**	5 0 0	— ..		..Fully pd.
16000	Coolartra & Bond* [5300 £1 pd., 10700 16s. pd.]				..Feb. 1865
256	Condurrow, *c, t,* Camborne	76 10 0	— ..		..
5000	Connorree, *c, sul,* Wicklow*	1 0 0	— ..		..Fully pd.
6500	Cornish Clay and Tin*	1 0 0	— ..		..Fully pd.
2450	Cook's Kitchen, *c,* Illogan	19 8 9	2 ..	1½ 2	..
1024	Copper Hill, *c,* Redruth	12 10 0	— ..		..June, 1866
861	Crane, *c,* Camborne	31 4 6	— ..		..Mar. 1866
3000	Crenver & Wh. Abraham*	4 0 0	— ..		..Mar. 1866
12000	Crelake, *c,* Tavistock	3 1 0	— ..		..Aug. 1865
2500	Crowan Consols, *c,* Crowan	5 11 0	— ..		..Dec. 1865
1428	Crowlwm, *l,* Llanidloes	1 13 0	— ..		..Dec. 1864
6000	Cuddra, *c, t,* St. Austell	4 18 6	— ..		..June, 1866
35000	Dale, *l,* North Stafford	1 0 0	— ..	¼ ⅜	..Fully pd.
1000	Darren, *l,* Cardigan*	9 4 0	— ..		..April,1866
4076	Devon and Cornwall, *c*	6 6 3	— ..		..
5000	Devon Great Maria*	7 0 0	— ..		..May, 1866
1024	Devon Wheal Lopes, *c**	12 0 0	— ..		..Dec. 1865
12800	Drake Walls, *t, c,* Calstock	2 1 0	— ..		..
656	Ding Dong, *t,* Gulval	48 14 6	— ..		..Sept. 1865
20000	Dolfrwynog, *g**	0 15 0	— ..		..June, 1864
3000	Dyfngwm, *l,* Wales	12 6 0	— ..		..
1000	Eaglebrook, *l**	17 19 0	— ..		..Feb. 1865
512	East Basset, *c,* Redruth†	29 10 0	13 ..	11 13	..
1000	East Basset and Grylls, *t*	3 5 0	— ..		..July, 1865
6000	E. Bottle Hill, *t,* Plympton	0 6 6	— ..	¼ ⅜	..Oct. 1865
2000	East Buller, *c,* Gwennap	2 0 0	— ..		..Mar. 1865
2000	East Chiverton, *l,* Perranz.	2 8 6	— ..		..May, 1866
2048	E. Falmouth, *s-l,* Kenwyn	5 0 6	— ..		..April,1864
6000	E. Grenville, *c,* Camborne	3 1 0	2½ ..	2⅛ 2⅜	..May, 1866
4000	E. Gunnislake & S. Bed. *c*	8 16 6	— ..		..May, 1866
6145	East Jane, *s-l,* Cardinham	2 17 6	— ..		..April,1865
6000	East Laxey, *l,* Isle of Man*	2 10 0	— ..		..Dec. 1865
3986	E. Providence, *t,* Uny Lel.	4 15 3	— ..		..May, 1866
5000	E. Tresavean, *c,* Gwennap.	0 10 0	— ..		..May, 1865
6000	East Snaefell, *l,* I. of Man*	2 0 0	— ..	1½ 2	..Dec. 1864
5610	East Seton, *c,* Camborne	0 11 0	— ..		..Oct. 1865
6000	East St. Just, *t**	3 0 0	— ..		..Jan. 1866
256	East Tolgus, *c,* Redruth	96 0 0	— ..		..April,1866
1190	E. Wh. Agar, *c,* St. Cleer	12 17 0	— ..		..Jan. 1865
2048	East Wheal Grylls, *t, c*	3 2 6	— ..		..Oct. 1865
4000	E. Wh. Russell, Tavistock†	11 6 0	— ..		..April,1866
15000	Ellen Unit., *c, z,* St. Agnes*	1 0 0	— ..		..Nov. 1866
6144	Esther Und., *t,* Cardinham	0 6 3	— ..		..July, 1865
6000	Fortescue Consols	0 12 6	— ..		..
940	Fowey Con., *c,* Tywardreath	4 18 6	— ..		..Mar. 1866
6000	Furze Hill Wood Con. Buckl.	1 16 0	— ..		..Feb. 1866
10000	Fursdon, *c** [5000 £1 10s.].	— ..	— ..		..Mar. 1865
4096	Garlidna Unit., *t,* Wendron	5 7 7	— ..		..Feb. 1866
4000	Gawton, *c,* Tavistock	3 5 6	— ..		..Feb. 1866
6000	Gen. Min. Co. for Ireland, *c*	4 0 0	— ..		..
5000	Glan Alun, *l,* Mold*	1 0 0	— ..		..Fully pd.
30000	Glasgow Caradon Cons., *c**	1 0 0	— ..		..Fully pd.
6000	Godolphin Hill, Breage*	1 3 0	— ..		..Dec. 1865
2000	Golch Hill, *l,* Flintshire	1 13 5	— ..		..Sept. 1865
6144	Gonamena, *c,* St. Cleer	5 4 0	— ..		..April,1866
6000	Gothic, *s-l,* Cardigan*	2 10 0	— ..	2⅞ 3⅛	..Fully pd.
486	Grambler and St. Aubyn†	68 0 0	— ..		..Mar. 1865
4096	Great Caradon, *c,* St. Ives	3 6 0	— ..		..April,1866
10000	Great Devon and Bedford	2 10 0	— ..		..Mar. 1866
3000	Gt. East Lovell, *t,* Helston	1 15 0	— ..		..May, 1866
5000	Great Mona, *l,* Isle of Man*	2 10 0	— ..		..Jan. 1866
5000	Great North Downs, *c*	5 8 0	— ..		..June, 1866
40000	Gt. Northern of Ireland*..	0 10 0	— ..		..
12500	Gt. No. Laxey (Isle of Man)*	0 10 0	2 ..	1⅞ 2⅛	..Feb. 1865
6000	Great Retallack, *s-l, b*	1 17 0	— ..		..April,1866
6000	Great South Chiverton, *s-l.*	1 7 6	— ..		..April,1866
6000	Gt. So. Tolgus, *c,* Redruth.	0 14 6	— ..		..
3000	Great West Chiverton, *l*	1 0 0	— ..		..June, 1864
3313	Great Wheal Baddern, *t*	7 17 6	— ..		..June, 1865
6000	Gt. Wh. Busy, *c, t,* Kenwyn	15 19 6	— ..		..Feb. 1866
1798	Gt. Wh. Fortune, *t,* Breage	26 2 0	2½ ..	1 2	..June, 1866
10000	Great Wh. Metal, Breage*.	2 0 0	— ..		..May, 1865
119	Great Work, *t,* Germoe	100 0 0	— ..		..
2500	Grit and Stapeley, *l**	10 0 0	— ..		..July, 1864
10240	Gunnislake (Clitters'), *c*	4 3 0	— ..		..
6068	Gwydyr Pk. Con., Llanrwst	1 11 6	— ..		..Feb. 1866
6000	Hallenbeagle, *c,* Kenwyn	2 2 6	— ..		..April,1866
6400	Harwood, *l,* Durham*	0 6 0	— ..		..Sept. 1864
5000	Havan, *l,* Cardigan*	4 15 0	— ..		..Mar. 1866
7219	Hawkmoor, *t, c,* Calstock	3 11 6	— ..		..Jan. 1866
5000	Hendre, *l,* Flint*	4 0 0	— ..		..April,1865
6000	Illogan, *t, c*	0 17 0	— ..		..Dec. 1865
6000	Lady Bertha, *c,* Tavistock†	3 16 0	— ..	¼ ½	..April,1866
3000	Leawood, *c, l*	3 3 6	— ..		..June, 1866
1019	Leeds and St. Aubyn, *t, c*	19 13 4	— ..		..Mar. 1866
963	Lelant Cons. *t,* Uny Lelant	35 0 0	— ..		..Mar. 1865
160	Levant, *c, t,* St. Just	10 8 1	— ..		..June, 1866
2000	Long Rake, *t,* Flint	6 15 6	— ..	⅛ ¾	..Jan. 1866
2000	Lower Park, *l,* Denbigh*	3 11 0	— ..		..Jan. 1864
3000	Maes-y-Safn, *l**	20 0 0	— ..		..
6000	Maudlin, *c,* Lostwithiel	4 7 0	— ..		..May, 1865
5000	Merilyn, *l,* Flint	3 15 6	— ..		..Jan. 1866
3000	Minera Western Boundry*	0 2 6	— ..		..Sept. 1865
4975	Molland, *c,* South Moulton	3 13 0	— ..		..Aug. 1865
640	Mount Pleasant, *l,* Mold	4 0 0	— ..		..
1024	Nangiles, *t, c,* Kea	25 0 0	— ..	5 7	..May, 1866
4000	Nanteos, *l,* Cardigan*	1 0 0	— ..		..Fully pd.
512	Nant Minera, *l**	6 10 0	— ..		..Jan. 1865
250	Nanty Mines, *l,* Montgom.	20 0 0	— ..		..
6000	New Clifford, *c,* Gwennap*	2 0 0	2¼ ..	2 2¼	..Mar. 1866
24000	New Cornish [12000 £1 pd., 12000 12s. pd.]				..Dec. 1864
6400	N. Crow Hill, *l,* St. Stephen	3 0 0	— ..		..Feb. 1866
6000	New East Birch Tor, *t*	1 2 6	— ..		..June, 1865
6514	New E. Russell, *c,* Tavistk.	0 9 6	— ..		..Nov. 1865
6400	Nether Hearth, *l,* Dufton	1 1 0	— ..		..May, 1865
400	New Hendra, *t, c,* Breage	14 11 0	— ..		..Mar. 1866
6400	New Pembroke, *t, c*	0 17 6	— ..		..Mar. 1866
5755	New Treleigh, *c,* Redruth	4 8 0	— ..		..May, 1866
960	New Trevenen, *t,* Wendron	8 14 0	— ..		..May, 1866
470	Newtonards Min. Co. Down	50 0 0	— ..		..
4096	New Wheal Lovell, *t*	1 5 0	— ..		..May, 1866
15000	New Wheal Martha, *c**	1 0 0	— ..		..Fully pd.
400	New Wh. Seton, *c,* Cambn.	51 15 0	35 ..	30 32	..May, 1866
6000	North Chiverton, *l*	2 6 0	— ..		..June, 1866
6080	North Devon, *s-l**	0 14 0	— ..		..Jan. 1866
5000	No. Dolcoath, *c,* Camborne	3 17 6	— ..		..April,1866
6000	North Downs, *c,* Redruth	4 6 4	— ..		..April,1866
1361	No. Grambler, *c,* Redruth	6 9 5	— ..		..June, 1866
16000	N. Hallenbeagle [8000 £1 pd., 8000 8s. 6d. pd.]				..July, 1865
6000	North Jane, *t, s-l,* Kenwyn	2 18 6	— ..		..May, 1866
6000	North Kit Hill, *t, c**	1 0 0	— ..	3	..
2000	North Levant, *t, c,* St. Just	10 3 0	— ..		..Sept. 1865
20000	Nth. Minera, *l